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This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

DLP PROJECTOR

Owner's Instructions | SP-H800

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Features and Design

Optical engine adopting advanced DLP technology

- The DLP HD2+, DC3 DMD panel of 1280x720 pixels resolution has been adopted.
- 5X-speed color wheel designed to reduce digital artifacts
- 250W Lamp designed to improve luminance

Vivid colors

- Quality picture tuning focused on improving color - this unit aims at realizing color coordinates that meet broadcasting standards on video production.

Minimized fan noise and light leakage

- The airflow and fan installation structure are optimized to minimize fan noise and beam leakage.

Various Input Ports

- Five types of input ports including a DVI-D (compatible with HDCP) port, two Component ports improve connection to external peripherals.

User adjustments

- This unit allows adjustment of each input port.
- The unit has a reference pattern that can be used for positioning and adjustment.
- For the user's convenience in dark surroundings, a backlight for the remote control is provided.

Caution on Lamp Use and Replacement

Projector Lamp

- The projector lamp is an expendable whose life time and performance is determined by the operating conditions such as the usage time and environment. The lamp needs to be replaced periodically before the life time ends so as to prevent a sudden degradation of performance or malfunction.
- Free servicing will be offered within 90 days after purchasing of the product and within 300 hours of product use, if the problem is due to a defective lamp.
- You can check the lamp use time by pressing the INFO button on the remote control.

Caution on Lamp Replacement

- Unplug the power cord before replacing the lamp.
- Inside of the projector is very hot. Cool off the projector for at least an hour after turning off.
- Contact your dealer to purchase a lamp for replacement. (Ultra violets from the lamp can damage your eyes.)
- Turn off the power of the lamp before replacement or repair. (Due to the high-pressure of the lamp, it is possible to explode.)
- Take care when handling the lamp because any broken pieces of glass may harm you if the lamp breaks. For more detailed information about the procedures to use, refer to <Replacing the Lamp> on page 83.

Caution on Lamp Use

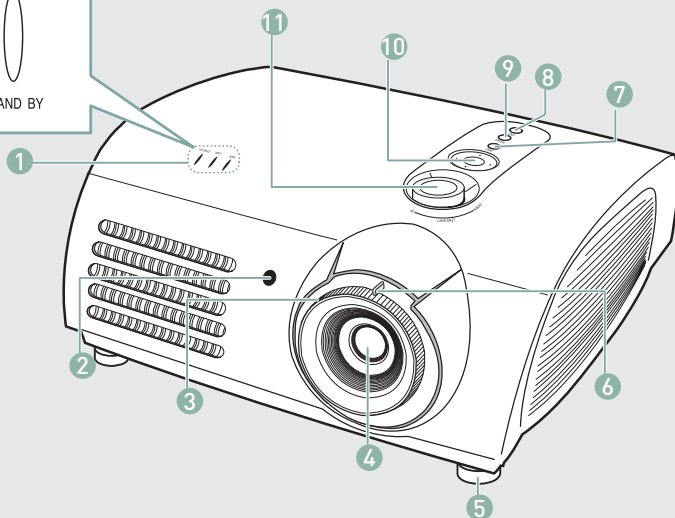
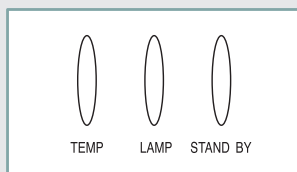
- This projector produces intense light. Do not stare light source directly.
Take Care: The ultraviolet ray from the lamp may harm your eyesight.
- Do not touch the exhaust vent during operation. It can be very hot.
- Do not expose the unit to rain or moisture.

Preparation

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Front/Upper Side and Accessories

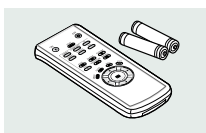
Front/Upper Side



- | | |
|---|--|
| <p>1 Indicators
 - TEMP (Red LED)
 - LAMP (Blue LED)
 - STAND BY (Blue LED)
 Refer to page 9 for details.</p> <p>2 Remote Control Signal Receiver</p> <p>3 Focus Ring
 Used for Focus Adjustment.</p> <p>4 Lens</p> <p>5 Adjustable Feet
 You can adjust the screen position by moving up and down the adjustable feet.</p> <p>6 Zoom Knob
 Used to enlarge or reduce image size.</p> | <p>7 MENU
 Use this button to enter or exit a menu or to move forward in a menu.</p> <p>8 POWER
 Used to turn the projector on or off.</p> <p>9 SOURCE
 Used to select input signals from the external sources.</p> <p>10 Select and Move Button
 Use this button to move to or select an item within a menu.</p> <p>11 Lenz Adjustment Dial
 You can adjust screen images up and down within the lens range.</p> |
|---|--|

Accessories

Remote Control/
2 Batteries



Power Cable



Owner's Instructions



Indicator Information

● : Turned on ● (with dot) : Blinks ○ : Turned off

TEMP	LAMP	STANDBY	Information
○	○	●	If you press the POWER button on the remote control or projector, the screen appears within 30 seconds.
○	●	●	The projector is in normal operating condition.
○	● (with dot)	●	This state appears when the projector is preparing an operation after the POWER button on the projector or the remote control has been pressed.
○	● (with dot)	○	The POWER button is pressed to turn off the projector, and the cooling system is in operation to cool off inside of the projector. (Lasts for about 1 minute and 30 seconds)
● (with dot)	○	● (with dot)	Refer to measure 1 below if the cooling fan inside the projector is not in normal operation condition.
● (with dot)	● (with dot)	○	Refer to measure 2 below if the lamp cover protecting the lamp unit is not closed properly.
● (with dot)	○	○	Power is turned off automatically when temperature inside of the projector goes beyond the control limit. Refer to measure 3.
● (with dot)	● (with dot)	● (with dot)	Refer to measure 4 below if the life span of the lamp is running out or a problem with the lamp is detected.

Clearing Indicator Problems

Classification	State	Measures
Measure 1	When the cooling fan system is not in normal operating condition.	If the symptom remains even after disconnecting and then reconnecting the power cord and turning the projector on again, contact your product provider or our service center.
Measure 2	When the lamp cover protecting the lamp unit is not properly closed or the sensor system is not in normal operating condition.	Check the screw on the bottom side of the projector. If you do not find any problem, contact a dealer or service personnel near you.
Measure 3	When temperature inside of the projector becomes too high.	Adjust the position of the projector following the installation instructions of this manual and cool off the projector before restarting it. If the problem does not disappear, contact a dealer or service personnel near you.
Measure 4	The lamp is malfunctioning after abnormal power off or restarting right after turning off the projector.	Turn the power off, wait for a sufficient amount of cooling time and then turn the power on for operations.
	When brightness of the picture screen degrades or image deterioration is found.	Check how long the lamp has been used on Information and contact a dealer or service personnel near you for lamp replacement.

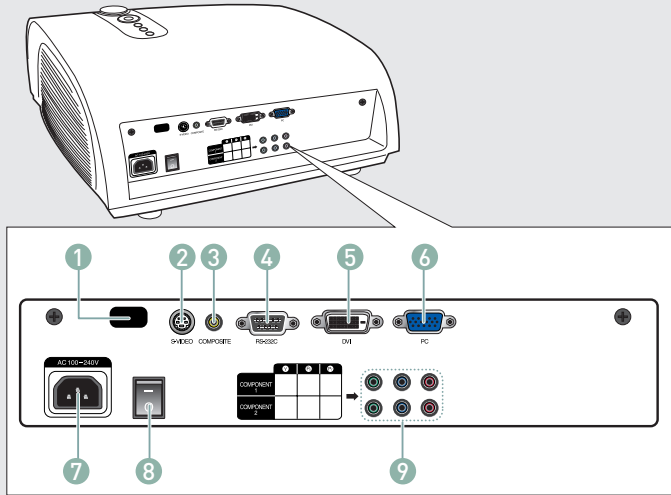


NOTE

This Projector uses a cooling fan system to keep the unit from overheating. Operation of the cooling fan may cause noise, which does not affect the product performance. No exchange or refund for the noise concern.

Rear Side and Cables

Rear Side



- | | | |
|----------------------------------|------------------|------------------------|
| 1 Remote Control Signal Receiver | 4 RS-232C port | 7 AC Power Input |
| 2 S-VIDEO Input port | 5 DVI Input port | 8 Power Switch |
| 3 COMPOSITE Input ports | 6 PC Input port | 9 Component Input port |

Cables

Power Cord

Connected to the wall outlet 7.



Video Cable (Optional Parts)

Connected to the connection port 3.



S-Video Cable (Optional Parts)

Connected to the connection port 2.



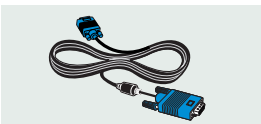
Component Cable (Optional Parts)

Connected to the connection port 9.



PC Video Cable (Optional Parts)

Connected to the connection port 6.

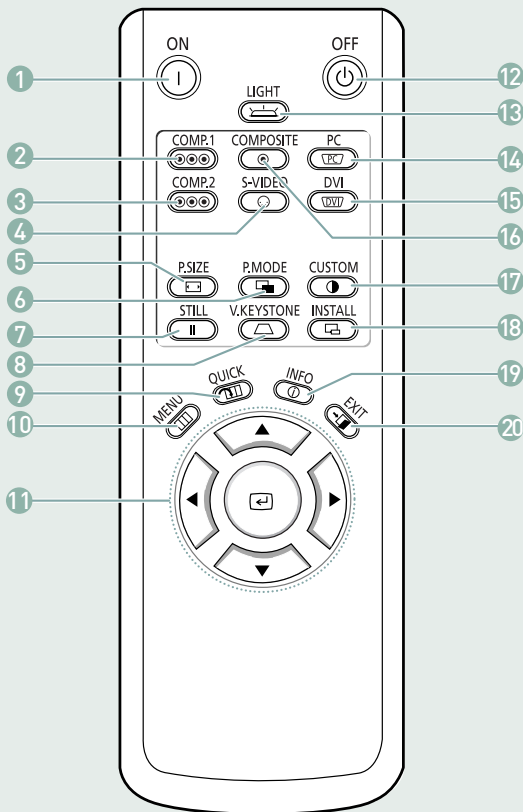


DVI-D Cable (Optional Parts)

Connected to the connection port 5.



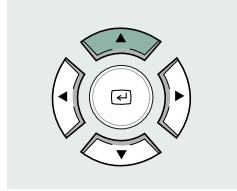
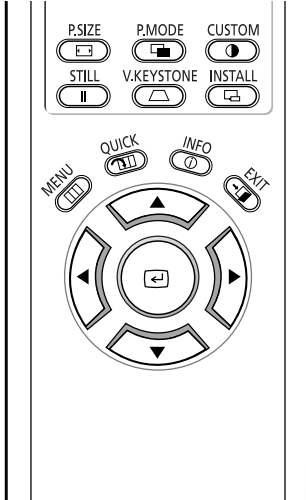
Remote Control Buttons



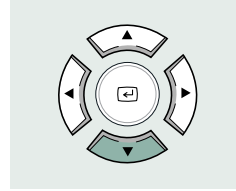
- 1 **ON**
Used to turn on the projector.
- 2 **COMP.1** (Pages 24~27)
Used to switch to COMPONENT 1 Mode.
- 3 **COMP.2** (Pages 24~27)
Used to switch to COMPONENT 2 Mode.
- 4 **S-VIDEO** (Pages 23, 26)
Used to switch to S-VIDEO Mode.
- 5 **P.SIZE** (Page 37)
Used to adjust the size of picture screen.
- 6 **P.MODE** (Page 30)
Used to select Picture Mode.
- 7 **STILL** (Page 45)
Used to see still images.
- 8 **V.KEYSTONE** (Page 50)
You can use this function for trapezoidal adjustment of the image.
- 9 **QUICK** (Page 60)
Used to quickly select the previous menu.
- 10 **MENU**
Used to display Menu Screen.
- 11 **▲▼◀▶ (Move) / ◀ (Select)**
Used to move to or select each menu item.
- 12 **OFF**
Used to turn off the projector.
- 13 **LIGHT** (Page 13)
Used to operate remote control in dark room.
- 14 **PC** (Pages 25, 64, 66~70)
Used to switch to PC Mode.
- 15 **DVI** (Page 25, 64)
Used to switch to DVI Mode.
- 16 **COMPOSITE** (Pages 23, 26)
Used to switch to COMPOSITE Mode.
- 17 **CUSTOM** (Page 31)
Used to select Picture User Adjust Mode.
- 18 **INSTALL** (Page 48)
Used to flip or reverse the projected image.
- 19 **INFO** (Page 53)
Used to check source signals, picture setup, PC screen adjustment and lamp lifespan.
- 20 **EXIT**
Used to make Menu Screen disappear.

Operating the Remote Control

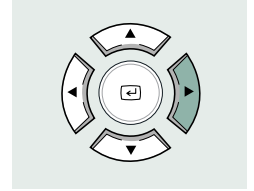
Operating Move/Select Button



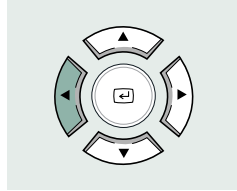
Move Menu Item (Up)



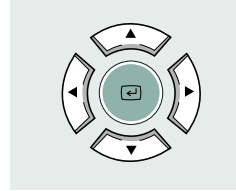
Move Menu Item (Down)



Setting the Adjustment (right), or move to lower item.



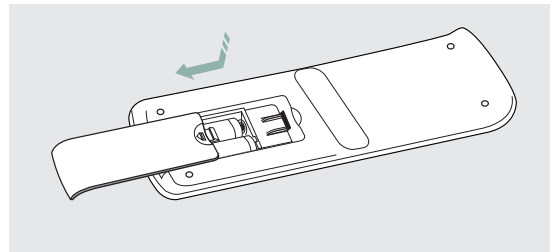
Setting the Adjustment (left), or move to upper item



Select the current setting

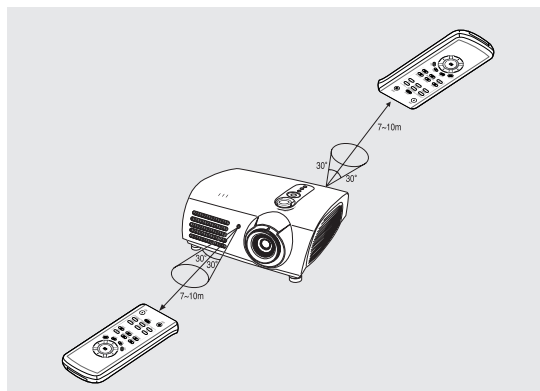
Inserting Batteries into Remote Control

1. Press on the ▼ part of the lid to remove it.
2. Insert two AAA-sized 1.5V batteries by matching +/-.
3. Close the lid.



Allowable range & angle of receiving the remote control signal

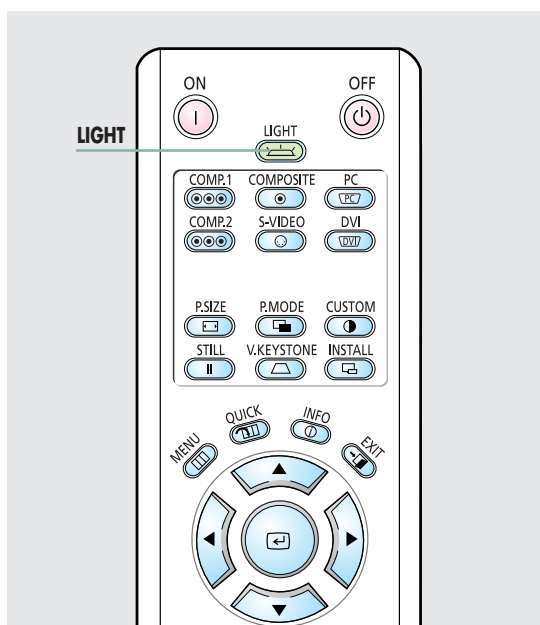
The remote control is effective within a 30° angle 7~10m from the projector.



- Keep used batteries away from children and dispose of them properly.
- Do not use new and used batteries together. Replace two batteries at the same time.
- Remove batteries when the projector is not used for long periods of time.

Using Remote Control in Dark Place (LIGHT)

Press the **LIGHT** button of the remote controller for five seconds. The remote control buttons are lit for about 5 seconds and turn off automatically.



Installation

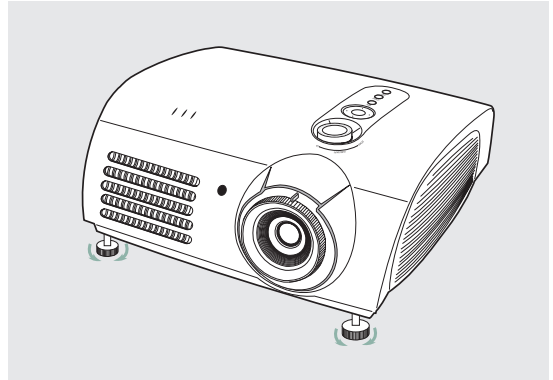
To Install the Projector

Install the projector so that the projection is perpendicular to the screen.



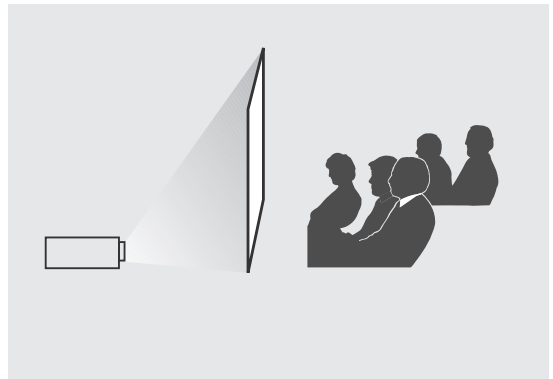
NOTE

- Center the lens to the screen. If the projector is not positioned perpendicular to the screen, the image may appear trapezoidal.
- Do not install the screen in a bright place as it makes it harder to see the screen.
- Darken the room when installing the projector in a bright place.



Installing Projector on Backside of Screen

Install a translucent screen to place the projector on the backside of the screen. The Translucent will show the horizontally flipped image. Rotate the image (projected from the projector) horizontally. (Page 48)



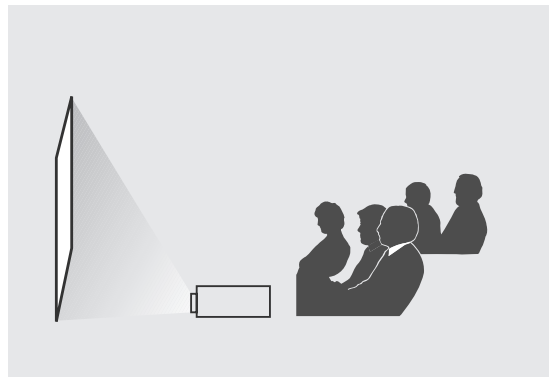
Installing Projector in Front of the Screen

Install the projector at the viewers' side.



NOTE

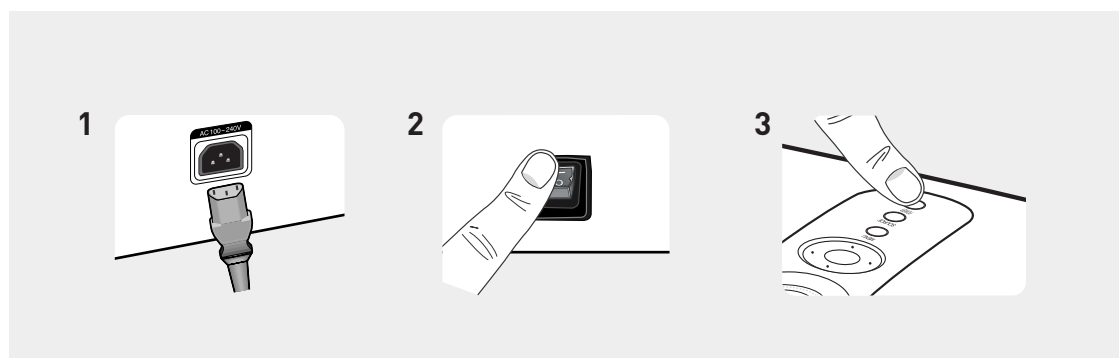
- The projector may be installed on the ceiling in front / back side of the screen.
- When installing the projector on the ceiling, contact your dealer.



Turning ON/OFF

Turning On Projector

1. Plug the power cord into the power terminal on the rear side of the projector.
2. Press and push the power switch on the rear side of the projector toward "—".
3. Press the **POWER** button of the projector or the **ON** button of the remote control.
4. A picture will be displayed on the screen in approximately 30 seconds.

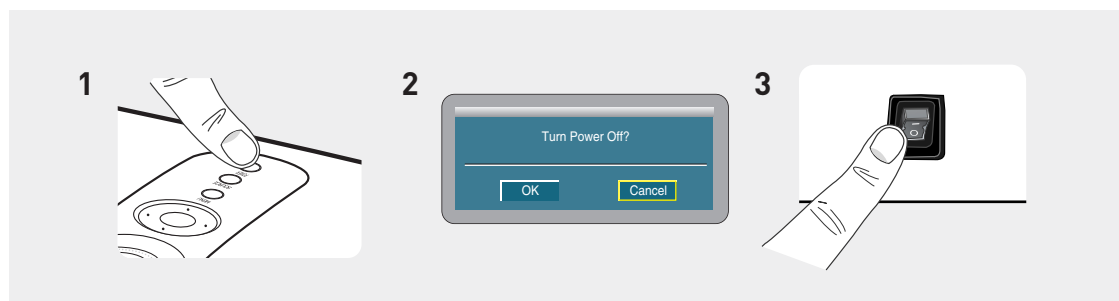


NOTE

- When you turn off the projector, the cooling fan stops within 1 minute and 30 seconds.
- When the cooling fan stops, push the power switch toward "O" and unplug the power cord.

Turning the power OFF

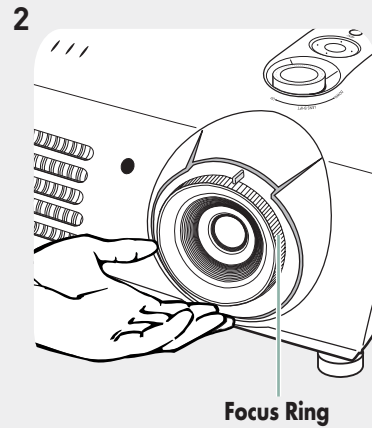
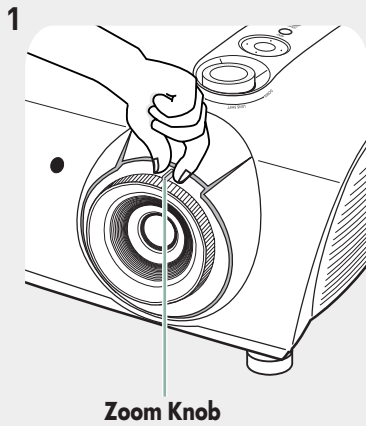
1. Press the [POWER] button on the projector or the [OFF] button on the remote control.
2. Select the [OK] button displayed on the screen.
3. Do not unplug the power cord from the wall outlet, and do not press the <O> side of the power switch at the back of the projector during the cooling time (approximately one and a half minutes). Insufficient cooling may reduce the life time of the product. During the cooling time, the [LAMP] operating LED on the main body blinks.
4. When the cooling operation is successfully completed, the [LAMP] operating LED on the main body is turned off and the [STAND BY] operating LED is turned on. Press the <O> side of the power switch at the back of the projector to minimize standby power consumption.



Zoom and Focus Adjustment

Using the Zoom Knob and the Focus Ring

1. You can adjust the size of image within zoom range by manipulating the Zoom Knob.
2. Focus the picture on the screen using the Focus Ring.

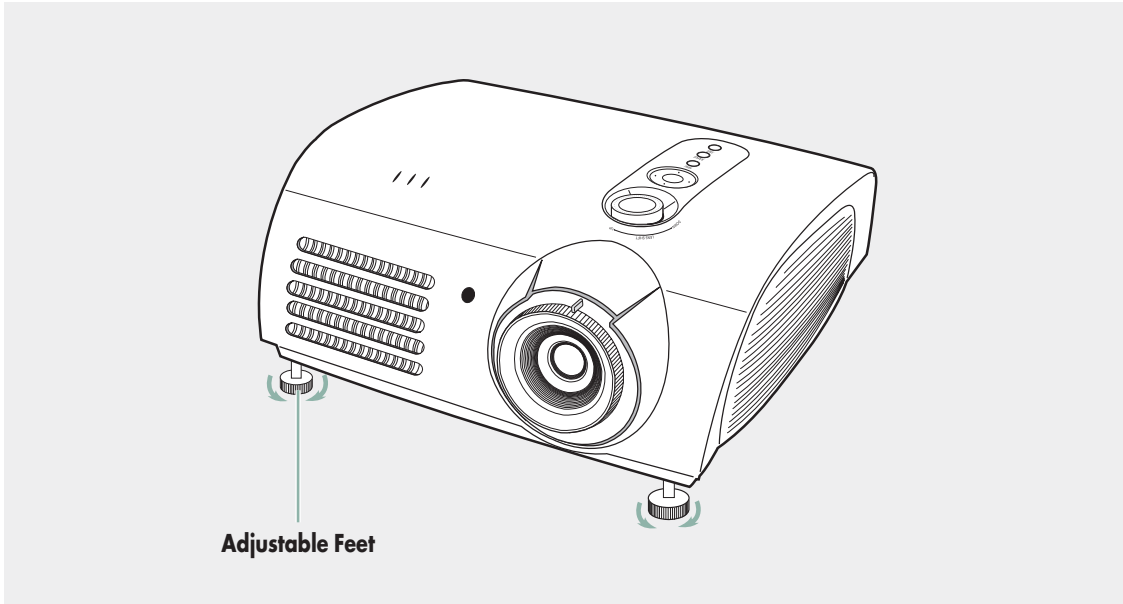


Focus may appear dim if the projector is installed at a shorter than recommended distance. (Page 19)

NOTE

Leveling with Adjustable Feet

For level placing of the projector, adjust the Adjustable Feet of the projector.



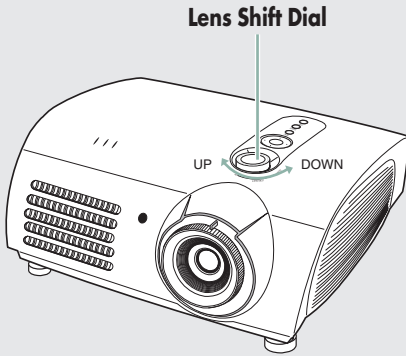
NOTE

- You may adjust the level of the projector up to 5 degrees.
- Depending on the position of the projector, Keystone distortion of image may appear. (Page 50)

Using the Lens Shift Dial

Using the Lens Shift Dial

Move the picture projected on the screen up and down within the lens range by turning the Lens Shift Dial on the top side of the projector with your fingers.



Screen Size and Projection Distance

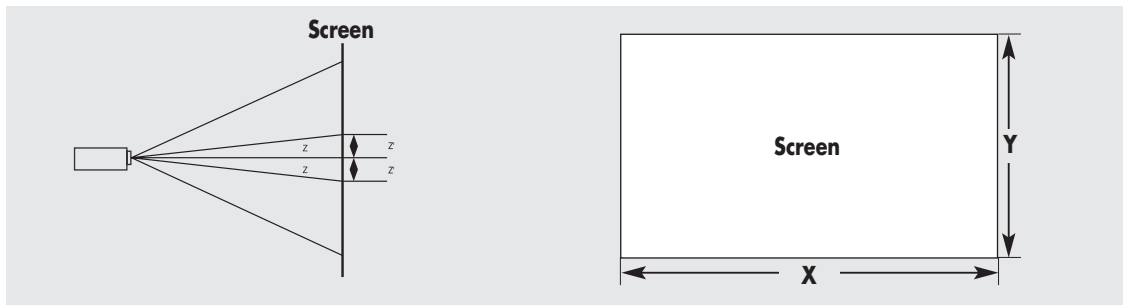
Install the projector on a flat, even surface and level the projector using the adjustable feet to realize optimal picture quality. If images are not clear, adjust them using the Zoom Knob or Focus Ring, or move the projector forward and backward.

Diagonal Image Size (inch)	Screen Size (16:9)		Throw Distance (Z)		Distance from Lens Center to Image Bottom (Z':cm/inch)
	Horizontal (X:cm/inch)	Vertical (Y:cm/inch)	Min (m/ft)	Max (m/ft)	
300	666.3	374.6	10.5	13.6	31.2
250	555.3	312.2	8.6	11.4	26.0
200	444.2	249.7	6.9	9.1	20.8
190	422.0	237.2	6.6	8.6	19.8
180	399.8	224.7	6.2	8.2	18.7
170	377.6	212.3	5.9	7.7	17.7
160	355.4	199.8	5.5	7.3	16.6
150	333.2	187.3	5.2	6.8	15.6
140	311.0	174.8	4.8	6.4	14.6
130	288.7	162.3	4.5	5.9	13.5
120	266.5	149.8	4.1	5.5	12.5
110	244.3	137.3	3.8	5.0	11.4
100	222.1	124.9	3.5	4.5	10.4
90	199.9	112.4	3.1	4.1	9.4
80	177.7	99.9	2.8	3.6	8.3
70	155.5	87.4	2.4	3.2	7.3
60	133.3	74.9	2.1	2.7	6.2
50	111.1	62.4	1.7	2.3	5.2
43	95.5	53.7	1.5	1.9	4.5
40	88.8	49.9	1.4	1.8	4.2
33	73.3	41.2	1.1	1.5	3.4
30.385	67.5	37.9	1.0	1.4	3.2



This projector is designed to show images optimally on a 80 to 150 inch sized screen.

NOTE



- Z : Throw Distance
- Z' : Distance from Lens Center to Image Bottom

NOTE

Connections and Source Setup

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Naming the External Connections	27

Before Connections

Check the followings before connecting the projector to other devices.

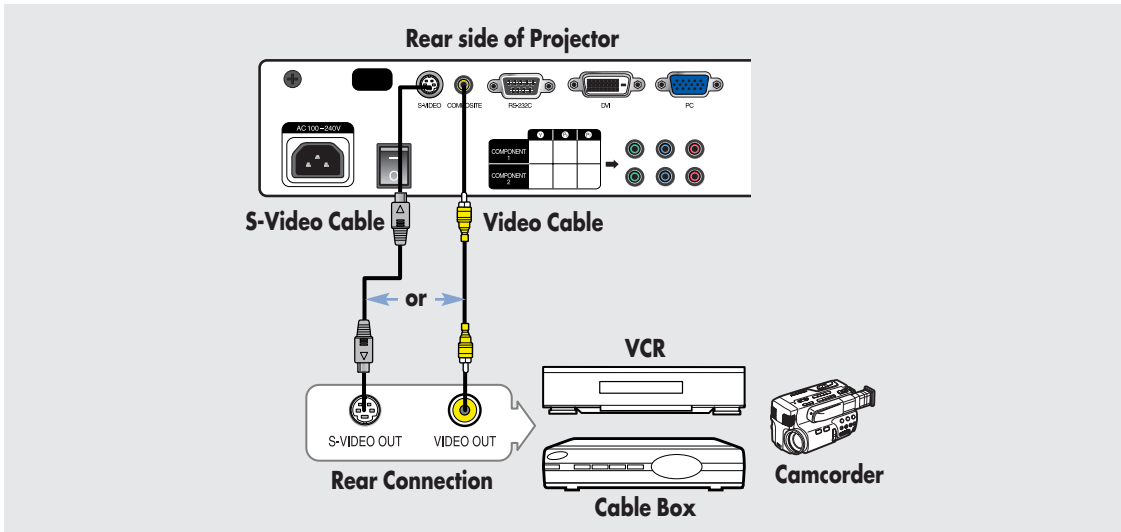
Check the following Before Connecting

1. Refer to the manual of the device the projector is connected to. The number and position of ports may differ depending on type of devices.
2. Do not connect power until all the connections are completed. If you try to connect power while connecting cables, it may result in damage to the projector.
3. Check the type of ports the projector is connected to.
4. This product receives video signals from an external device and displays the video to a screen. For audio signals, an additional audio system is required.

Refer to "Rear Side and Cables" on page 10 for cables used for connection.

CONNECTING TO VIDEO EQUIPMENT

Connecting to VCR/Camcorder/Cable Box



1

Connect COMPOSITE (yellow) input port of the projector to the VIDEO (yellow) OUT port of video equipment using the video cable.

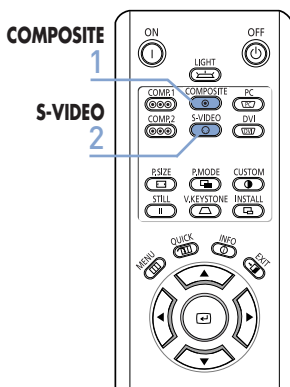
If the video equipment has S-VIDEO OUT port, connect it to S-VIDEO input port of the projector.

- Using the S-VIDEO connection, provides a higher visual quality.

2

When finishing connecting the devices, connect the power of the projector and the VCR.

Viewing the picture



1 Turn on the projector and press the COMPOSITE button to select Composite.

2 Connect the projector and the video equipment via S-Video cable and press the S-VIDEO button to select S-Video.

- When Composite Mode is not available, check the video cables are in place.

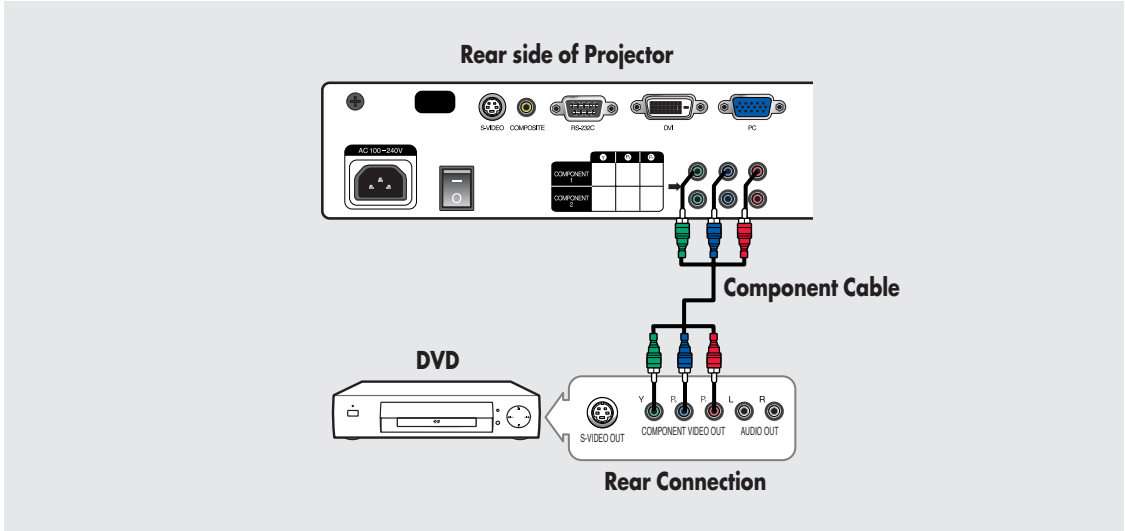


- Check that the projector and the video equipment are turned off before connecting cables.
- This projector does not support sound. (Separate audio system is needed for sound.)
- This product does not support the PAL-N broadcasting type.

Composite

CONNECTING TO VIDEO EQUIPMENT

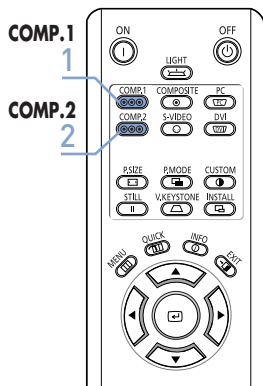
Connecting to DVD



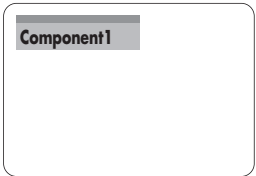
1 Connect the COMPONENT 1 (Y/Pb/Pr) or COMPONENT 2 (Y/Pb/Pr) input port at the back of the projector to the Component port at the back of the DVD with the component cable.

2 When finishing connecting the devices, connect the power of the projector and the DVD.

Viewing the picture



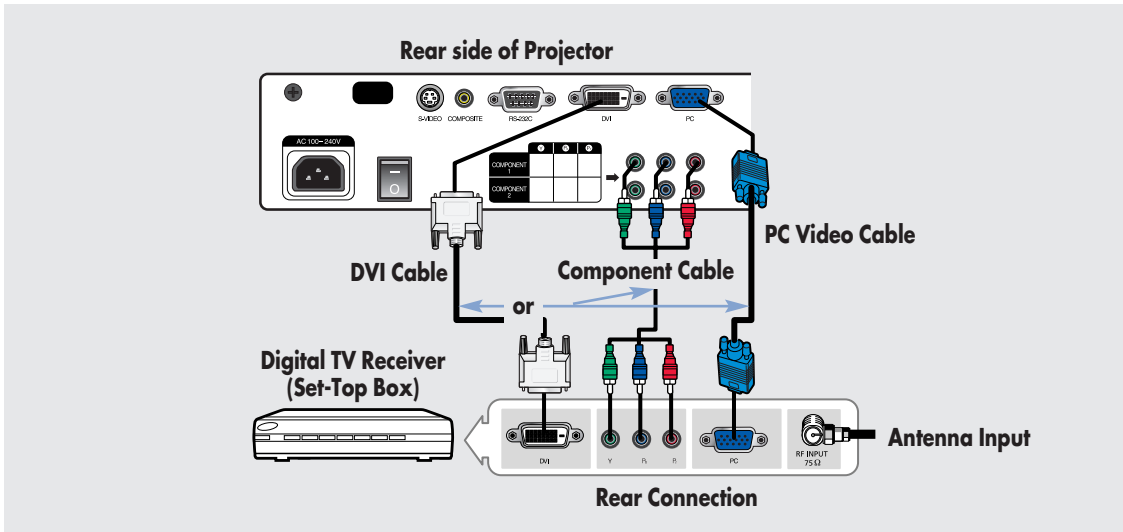
- 1** Turn on the projector and press the COMP.1 button to select Component1.
- 2** Press the COMP.2 button to select Component2 if COMPONENT2 is connected.
 - When Component Mode is not available, check that the component cables are in place.



NOTE Component Ports are marked as (Y, PB,PR), (Y, B-Y, R-Y) or (Y, Cb, Cr) depending on the manufacturer.

CONNECTING TO VIDEO EQUIPMENT

Connecting to the Digital TV Receiver



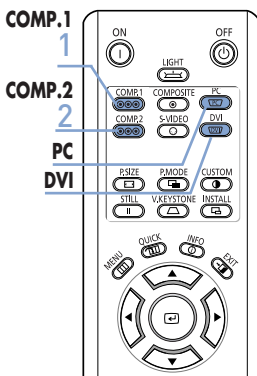
1 Connect antenna cable to antenna signal input terminal of the receiver.

3 When finish connecting the devices, connect the power of the projector and the DTV receiver.

2 Connect the COMPONENT 1 (Y/Pb/Pr) or COMPONENT 2 (Y/Pb/Pr) input port at the back of the projector to the Component port at the back of the digital broadcast receiver with the component cable.

If the digital broadcast receiver provides a DVI or PC output port, you can connect a digital broadcast receiver using the [DVI] or [PC] input port of the projector.

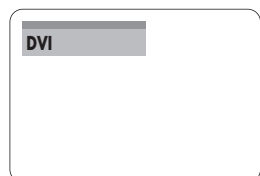
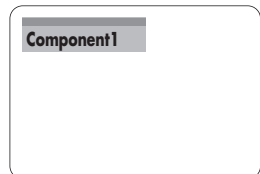
Viewing the picture



1 Turn on the projector and press the COMP.1 button to select Component1.

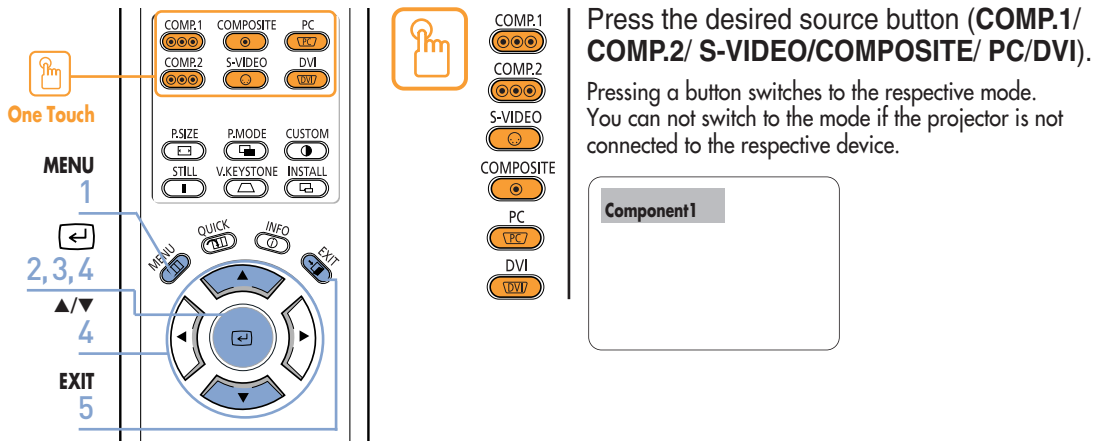
2 Press the COMP.2 button to select Component2 if COMPONENT2 is connected. If the receiver is connected to DVI or PC port, press the DVI or PC button to select DVI or PC respectively.

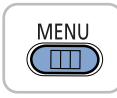
- When Component Mode is not available, check that the component cables are in place.






Setting up the External Input Source



You can select a device connected to the projector to display.







- 

1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the  button to select **Input**.
The **Input** menu is displayed.
- 

3 Press the  button to select **Source List**.
The **Source List** menu is displayed.
- 

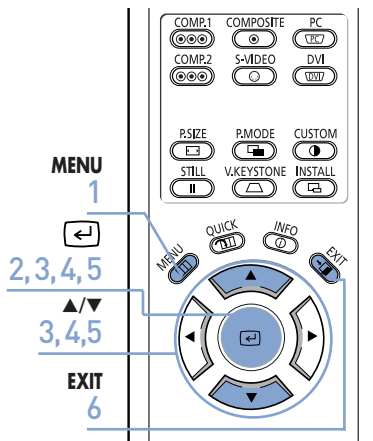
4 Press the  or  button to move to desired input mode, then press the  button.
The source input you chose is displayed.
If the input mode is not selected, check that cables are in place.
- 


5 Press the **EXIT** button to exit the settings.






Naming the External Connections



You can edit the names of devices connected to the projector.







- 

1 Press the **MENU** button.
The main menu is displayed.
- 

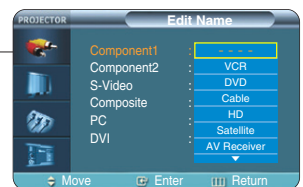
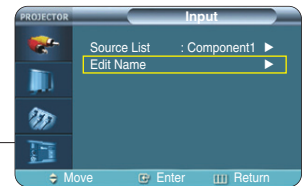
2 Press the  button to select **Input**.
The **Input** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Edit Name**, then press the  button.
The **Edit Name** menu is displayed.
- 

4 Press the **▲** or **▼** button to move to edited input mode, then press the  button.
- 

5 Press the **▲** or **▼** button to move to desired device, then press the  button.
Setup is switched to the selected device.
- 

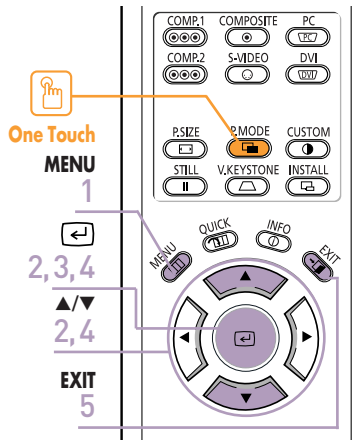
6 Press the **EXIT** button to exit the settings.



Picture Adjustment

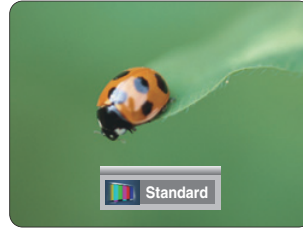
Selecting Picture Mode	30
Custom Settings of the Picture	31
Changing the Color Standard	32
Selecting and Adjusting Color Temperature	33
Gamma Correction	34
Saving Custom Picture Settings	35
Setting up DNLe	36
Selecting Picture Size	37
Screen Position Adjustment	39
Selecting Noise Reduction	40
Color Control	41
Film Mode	42
Overscan	43
Setting the Black Level	44
Still Picture	45


Selecting Picture Mode

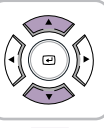



Press the **P.MODE** button.


Each press of the button, picture mode is switched to **Dynamic**, **Standard**, **Movie1**, **Movie2**, **User1**, **User2**, **User3** and **Custom**.




- 

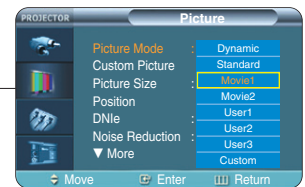
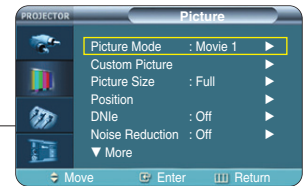
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Picture**.
The **Picture** menu is displayed.
- 

3 Press the **←** button.
The **Picture Mode** options will be displayed.
- 

4 Press the **▲** or **▼** button to move to desired mode, then press the **←** button.
When pressing the **▲** or **▼** buttons, the Picture Mode changes to **Dynamic** - **Standard** - **Movie 1** - **Movie 2** - **User 1** - **User 2** - **User 3** - **Custom** sequentially.
- 

5 Press the **EXIT** button to exit the settings.



Settings for Each Picture Mode

Picture Mode	Color Temperature	Gamma
Dynamic	9300K	Graphic: Gamma mode that matches a PC screen.
Standard	8000K	Video: Gamma mode normal that matches a TV screen.
Movie1	6500K	Film: Film mode gamma.
Movie2	5500K	



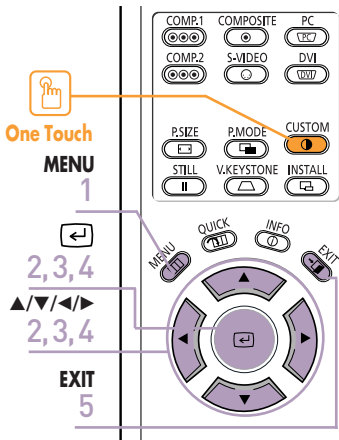
NOTE

You can save your screen settings in User 1, User 2, and User 3 according to your needs.

▶ See page 35.

Custom Settings of the Picture

You can adjust **Contrast**, **Brightness**, **Sharpness**, **Color** and **Tint** of the picture as desired.

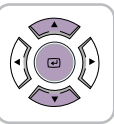


Press the **CUSTOM** button.

The Custom Picture menu is displayed.
 Refer to number 4 below to make adjustments.



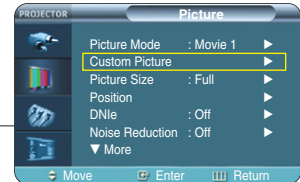
1 Press the **MENU** button.
 The main menu is displayed.



2 Press the **▲** or **▼** button to move to **Picture**.
 Press the **↵** button.
 The **Picture** menu is displayed.



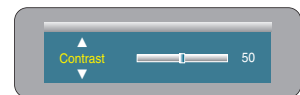
3 Press the **▲** or **▼** button to move to **Custom Picture**, then press the **↵** button.
 The **Custom Picture** menu is displayed.



4 Press the **▲** or **▼** button to move to desired item, then press the **↵** button. Press the **◀** or **▶** button to adjust the selected item.
 A separate adjustment window appears for making the adjustment.



5 Press the **EXIT** button to exit the settings.



Custom Picture Menu

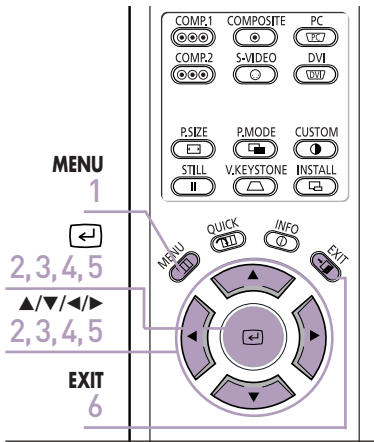
Contrast	Used to adjust the contrast between the object and the background.
Brightness	Used to adjust brightness of the entire picture.
Sharpness	Used to adjust the outlines of the object sharper or less sharp.
Color	Used to adjust color lighter or deeper.
Tint	Used to obtain more natural color of objects using Green or Red enhancement.




- You can only adjust color in **S-Video** and **Composite** modes.
- You cannot adjust the sharpness in **Component1**, **2(720p)**, **PC** and **DVI** modes.

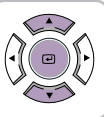
Changing the Color Standard


You may adjust the color standard to suit the color standard of the input signal.

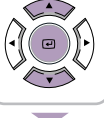



Color Standard		
A domestic user has to select SMPTE_C for general cases.		
SMPTE_C	Standardized for Video Equipment by the Society of Motion Picture and Television Engineers	NTSC
HD	High Definition, 1125 scan lines, standard definition TV submitted to the ITU-R by U.S., Japan and Canada, in 1986.	ATSC
EBU	Regulations and standards for European Broadcasting Production and Technology, standardized by the European Broadcasting Union.	PAL, SECAM


- 

1 Press the **MENU** button.
The main menu is displayed.
- 

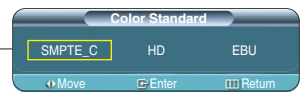
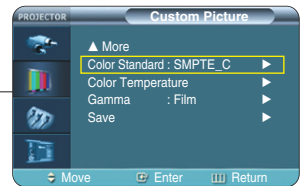
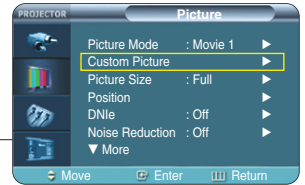
2 Press the **▲** or **▼** button to move to **Picture**, then press the **↵** button.
The **Picture** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Custom Picture**, then press the **↵** button.
The **Custom Picture** menu is displayed.
- 

4 Press the **▲** or **▼** button to move to **Color Standard**, then press the **↵** button.
The **Color Standard** options will be displayed.
- 

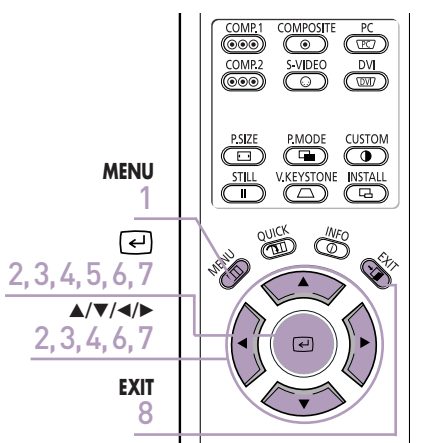
5 Press the **◀** or **▶** button to move to desired item, then press the **↵** button.
- 

6 Press the **EXIT** button to exit the settings.




Selecting and Adjusting Color Temperature


You can change tint of the entire screen to suit your needs.





Color Temperature Menu


5500K	Used to deliver optimal image quality for black-and-white films. Color temperature of the picture mode of Movie2 is set to 5500K.
6500K	This temperature is used for the most video productions. It is set as Movie1 when it is manufactured, and may deliver the most precise tint.
8000K	The color temperature appropriate to quite bright places and saved in D y n a m i c Picture Mode. The sharpness and brightness are emphasized.
9300K	The color temperature appropriate to very bright places such as a shop.


- 


1 Press the **MENU** button. The main menu is displayed.
- 


2 Press the **▲** or **▼** button to move to **Picture**, then press the **↵** button. The **Picture** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Custom Picture**, then press the **↵** button. The **Custom Picture** menu is displayed.
- 

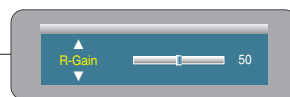
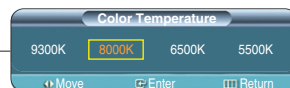
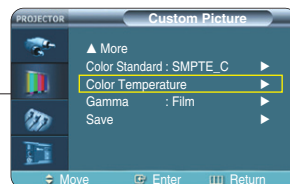
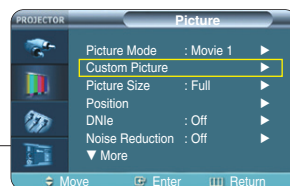
4 Press the **▲** or **▼** button to move to **Color Temperature**, then press the **↵** button. The **Color Temperature** options will be displayed.
- 

5 Press the **↵** button to select the **Color Temperature**.
- 

6 Press the **◀** or **▶** buttons to select an option then press the **↵** button. The selected option is applied.
- 

7 Press the **▲** or **▼** buttons to select an option then press the **↵** button. Press the **◀** or **▶** buttons to adjust the selected item. A separate adjustment window appears for making the adjustment.
- 

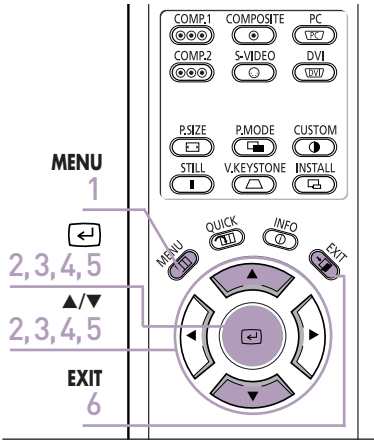
8 Press the **EXIT** button to exit the settings.





NOTE If you select Red, Green or Blue from the color adjustment menu, you can only adjust the Gain and Offset.
▶ See page 41.


Gamma Correction


An image compensation function that controls the settings according to the video properties.





- 

1 Press the **MENU** button.
The main menu is displayed.
- 

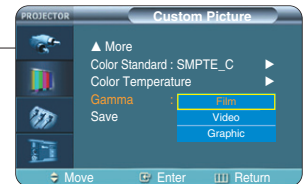
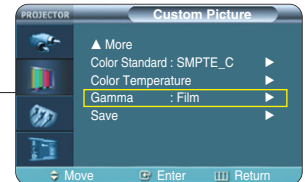
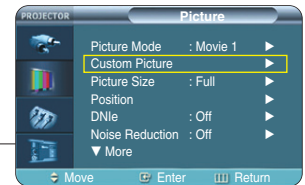
2 Press the **▲** or **▼** button to move to **Picture**, then press the **↵** button.
The **Picture** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Custom Picture**, then press the **↵** button.
The **Custom Picture** menu is displayed.
- 

4 Press the **▲** or **▼** button to move to **Gamma**, then press the **↵** button.
The **Gamma** is selected.
- 

5 Press the **▲** or **▼** button to move to desired mode, then press the **↵** button.
Setup is switched to the selected mode.
- 

6 Press the **EXIT** button to exit the settings.

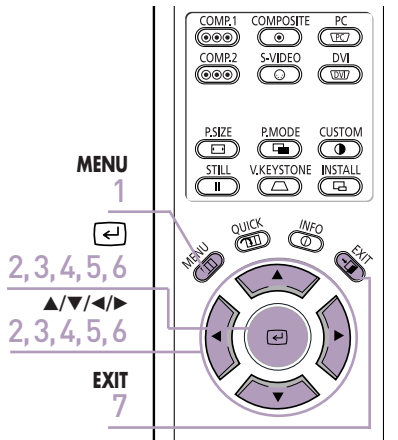



Gamma Mode


Graphic	The Gamma mode that matches a PC screen.
Video	The Gamma mode normal that matches a TV screen.
Film	Film mode gamma.

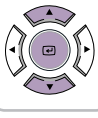
Saving Custom Picture Settings

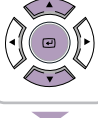
Used to save custom picture (**Contrast, Brightness, Sharpness, Color, Tint, Color Temperature and Gamma**) settings.




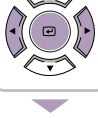
- 


1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Picture**, then press the **↵** button.
The **Picture** menu is displayed.
- 

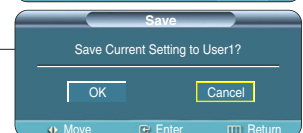
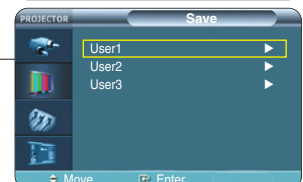
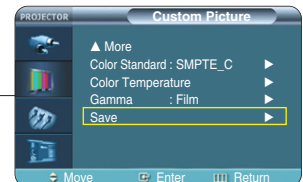
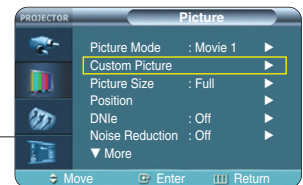
3 Press the **▲** or **▼** button to move to **Custom Picture**, then press the **↵** button.
The **Custom Picture** menu is displayed.
- 

4 Press the **▲** or **▼** button to move to **Save**, then press the **↵** button.
The **Save** menu is displayed.
- 

5 Press the **▲** or **▼** button to move to desired mode, then press the **↵** button.
- 

6 Press the **◀** or **▶** button to move to **OK**, then press the **↵** button.
Setup is switched to the selected mode.
- 

7 Press the **EXIT** button to exit the settings.

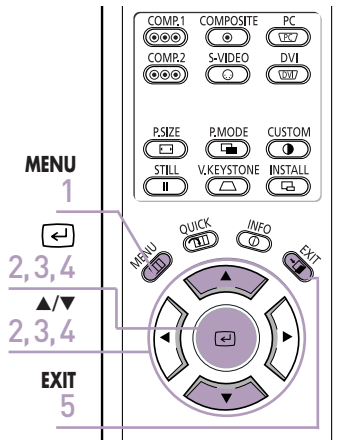



NOTE

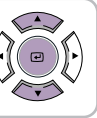
The User1, User2 and User3 modes are saved differently according to external input sources (Component1/Component2/S-Video/Composite/PC/DVI).


Setting up DNle


DNle (Digital Natural Image engine) is an image enhancing function developed by Samsung Electronics. It enables users to enjoy brighter, sharper and more dynamic pictures.




- 

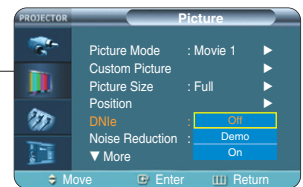
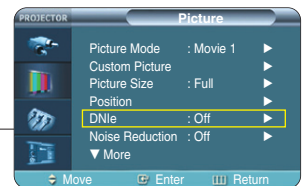
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Picture**, then press the **↵** button.
The **Picture** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **DNle**, then press the **↵** button.
The **DNle** options will be displayed.
- 

4 Press the **▲** or **▼** button to move to **On**, then press the **↵** button.
Setup is switched to the selected mode.
- 

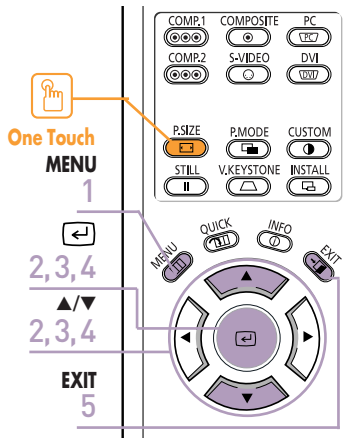
5 Press the **EXIT** button to exit the settings.



DNle Mode

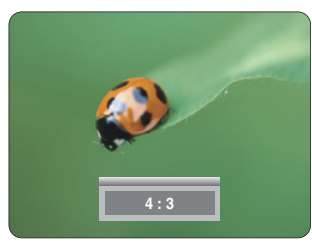
Off	DNle Mode Off
Demo	DNle On/Off Picture Comparison Mode
On	The mode when the DNle function is enabled.


Selecting Picture Size





Press the **P.SIZE** button.

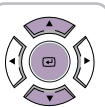
When pressing the **P.SIZE** button, the screen size changes to Full - Zoom 1 - Zoom 2 - 4 : 3 sequentially.




- 

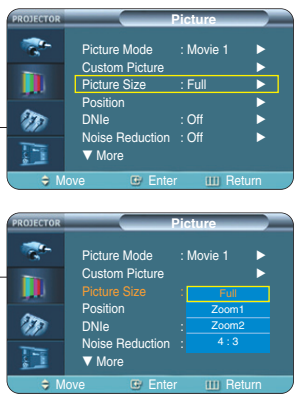
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Picture**, then press the **←** button.
The **Picture** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Picture Size**, then press the **←** button.
The **Picture Size** is selected.
- 

4 Press the **▲** or **▼** button to move to desired mode, then press the **←** button.
Setup is switched to the selected mode.
- 

5 Press the **EXIT** button to exit the settings.



Supported Picture Sizes

O : Supported Modes X : Unsupported Modes

Input			Picture Size			
Source	Signal	Mode	Full	Zoom1	Zoom2	4:3
DVI	HD	1080i	O	X	X	O
		720p	O	X	X	X
		576p	O	O	X	O
		480p	O	O	X	O
	PC	16:9 Mode	O	X	X	X
		4:3 Mode	O	X	X	O
PC (D-Sub)	HD	1080i	O	X	X	O
		720p	O	X	X	X
		576p	O	O	X	O
		480p	O	O	X	O
	PC	16:9 Mode	O	X	X	X
		4:3 Mode	O	X	X	O
Component	HD	1080i	O	X	X	O
		720p	O	X	X	O
		576p	O	O	X	O
		480p	O	O	X	O
	SD	576i	O	O	O	O
		480i	O	O	O	O
Composite & S-Video	SD	480i	O	O	O	O

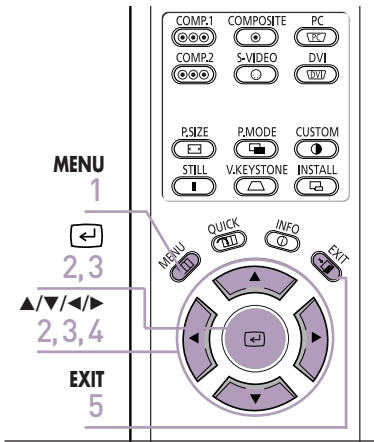


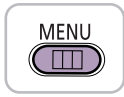
NOTE

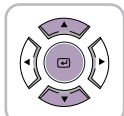
Refer to page 62 for display modes supported.

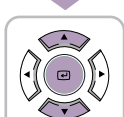
Screen Position Adjustment

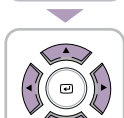
Adjust the screen position if the edges are not aligned.

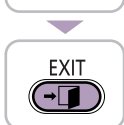


- 

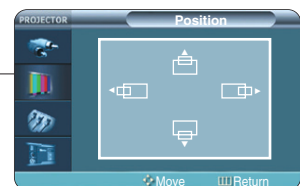
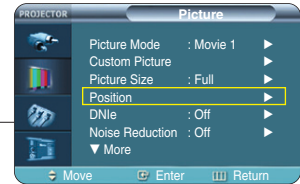
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Picture**, then press the **↵** button.
The **Picture** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Position**, then press the **↵** button.
The **Position** is displayed.
- 

4 Press the **▲**, **▼**, **◀**, or **▶** buttons to adjust the position.
The screen position is determined according to the selected screen position.
- 

5 Press the **EXIT** button to exit the settings.

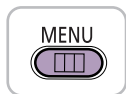
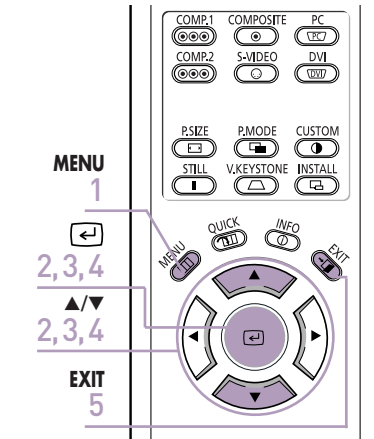


NOTE

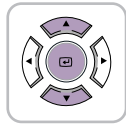
- The respective position information is set and stored automatically to the corresponding external input modes (Component 1, 2 / S-Video, Composite / PC).
- In DVI mode, the screen position setting will not work.

Selecting Noise Reduction

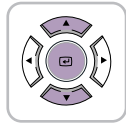
When a dotted line is displayed or the screen trembles, you can view picture in better visual quality by enabling Noise Reduction.



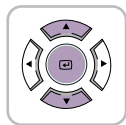
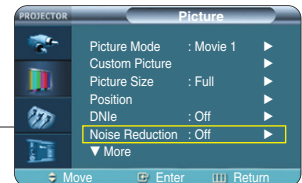
1 Press the **MENU** button.
The main menu is displayed.



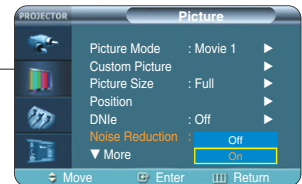
2 Press the **▲** or **▼** button to move to **Picture**, then press the **↵** button.
The **Picture** menu is displayed.



3 Press the **▲** or **▼** button to move to **Noise Reduction**, then press the **↵** button.
The **Noise Reduction** options will be displayed.



4 Press the **▲** or **▼** button to move to **On**, then press the **↵** button.
Noise Reduction is activated.
If you select **Off**, Noise Reduction is disabled.



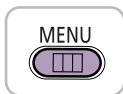
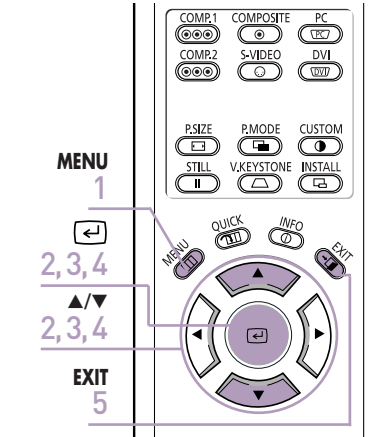
5 Press the **EXIT** button to exit the settings.



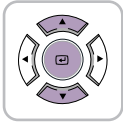
You can only enable the Noise Reduction function in Composite, S-Video and Component1, 2(480i) modes.

Color Control

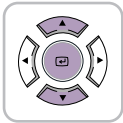
You can filter the color of the entire screen according to your taste.



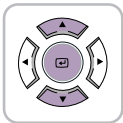
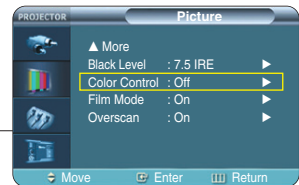
1 Press the **MENU** button.
The main menu is displayed.



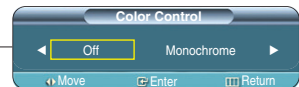
2 Press the **▲** or **▼** button to move to **Picture**, then press the **↵** button.
The **Picture** menu is displayed.



3 Press the **▲** or **▼** button to move to **Color Control**, then press the **↵** button.
The **Color Control** options will be displayed.



4 Press the **◀** or **▶** button to move to desired mode, then press the **↵** button.
The picture will only be displayed using the selected color.



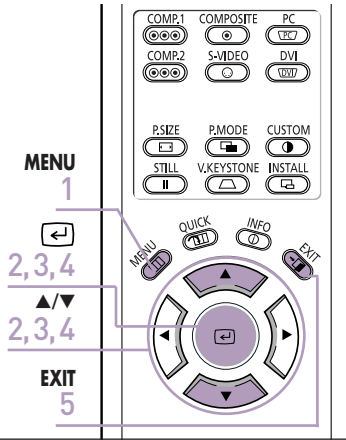
5 Press the **EXIT** button to exit the settings.


Color Control Mode

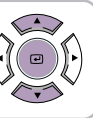
Off	Shows the picture in the original color.
Monochrome	Shows the picture in black and white color by filtering out all color signals.
Red	Shows the picture in red by filtering out the green and blue color signals.
Green	Shows the picture in green by filtering out the red and blue color signals.
Blue	Shows the picture in blue by filtering out the red and green color signals.

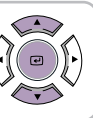
Film Mode

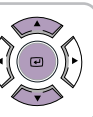
Using this function, you can set the display mode optimized for playing movies when watching a movie. Film Mode provides optimal display settings for movies.




- 

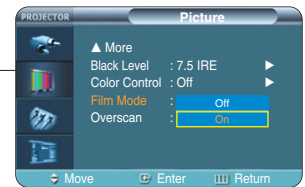
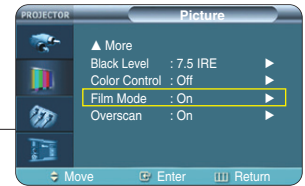
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Picture**, then press the **←** button.
The **Picture** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Film Mode**, then press the **←** button.
The **Film Mode** options will be displayed.
- 

4 Press the **▲** or **▼** button to move to **On**, then press the **←** button.
Setup is switched to the selected mode.
- 

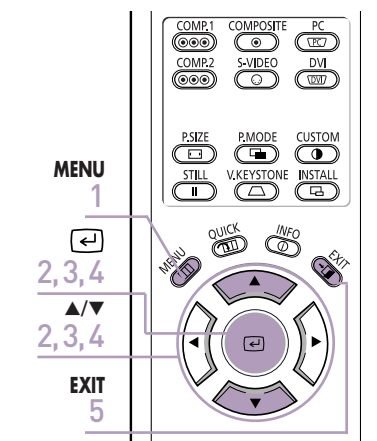
5 Press the **EXIT** button to exit the settings.








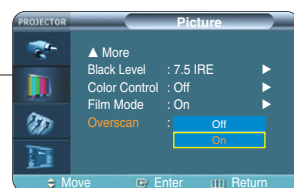
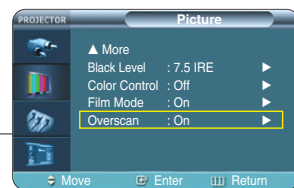
NOTE Film Mode is only supported for Composite, S-Video and Component (480i).

Overscan

Using this function, you can cut the edge of the picture when there is unnecessary information, images or noise on the edge of the picture.



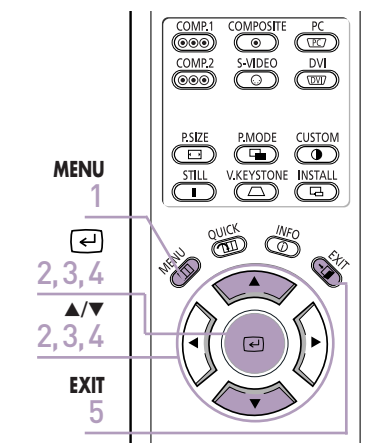
- 
1 Press the **MENU** button.
The main menu is displayed.
- 
2 Press the **▲** or **▼** button to move to **Picture**, then press the **←** button.
The **Picture** menu is displayed.
- 
3 Press the **▲** or **▼** button to move to **Overscan**, then press the **←** button.
The **Overscan** options will be displayed.
- 
4 Press the **▲** or **▼** button to move to **On**, then press the **←** button.
Setup is switched to the selected mode.
- 
5 Press the **EXIT** button to exit the settings.



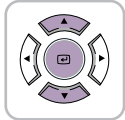
NOTE For extremely poor video signals, some unnecessary video signals may be displayed on the screen.

Setting the Black Level

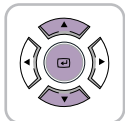
Using the Black Level function, you can set the light level of the darkest portion of the video signal so that you can clearly see dark areas on the screen.



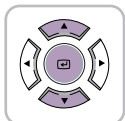
1 Press the **MENU** button.
The main menu is displayed.



2 Press the **▲** or **▼** button to move to **Picture**, then press the **←** button.
The **Picture** menu is displayed.



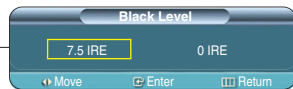
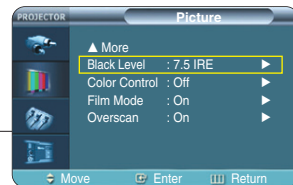
3 Press the **▲** or **▼** button to move to **Black Level**, then press the **←** button.
The **Black Level** options will be displayed.



4 Press the **◀** or **▶** button to move to desired mode, then press the **←** button.
Setup is switched to the selected mode.



5 Press the **EXIT** button to exit the settings.

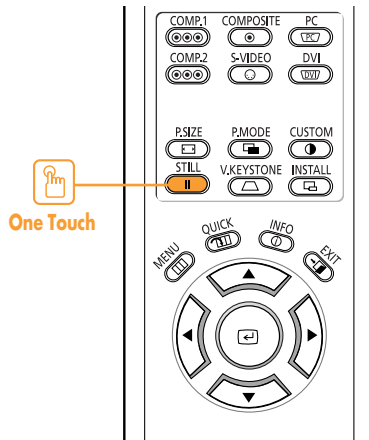


Black Level Modes

7.5 IRE	Sets the light level of the darkest portion of the video signal to high. If the setting does not match the input signal, the dark screen is saturated and may not display properly.
0 IRE	Sets the light level of the darkest portion of the video signal to low. If the setting does not match the input signal, the dark screen looks milky-white.

Still Picture

Used to pause playback to see a still picture.



Press the **STILL** button.

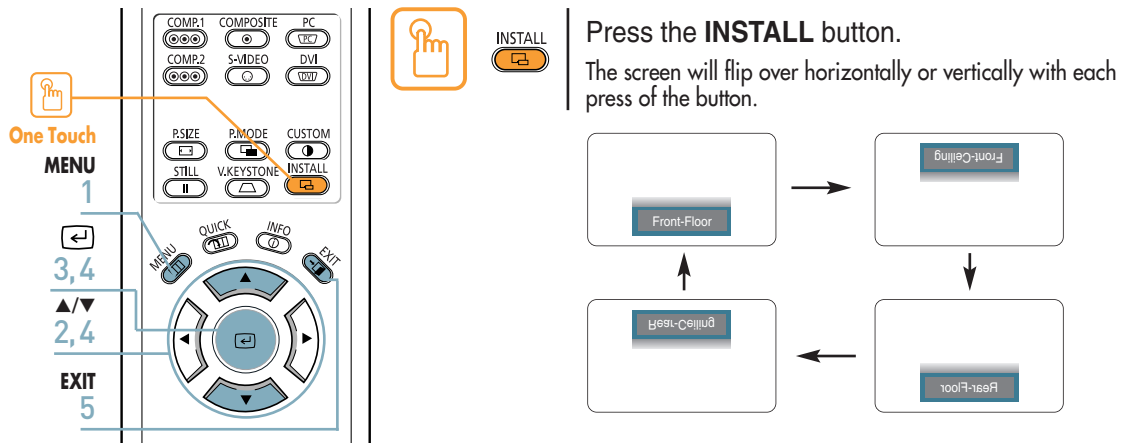
Each press of the button pauses and resumes play back.

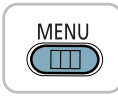
Setup

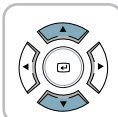
Flipping/Reversal of Projected Image48
Light Setting49
Correcting Vertical Keystone50
Test Patterns51
Restoring the Factory Default Settings52
Information53
Setting the LED54


Flipping/Reversing the Projected Image


To support positioning of the projector, horizontal/vertical flipping and picture reversal are available.




- 

1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Setup**.
The **Setup** menu is displayed.
- 

3 Press the **↩** button.
Install is selected.
- 

4 Press the **↩** button again.
Press the **▲** or **▼** button to move to desired mode, then press the **↩** button.
Setup is switched to the selected mode.
- 

5 Press the **EXIT** button to exit the settings.

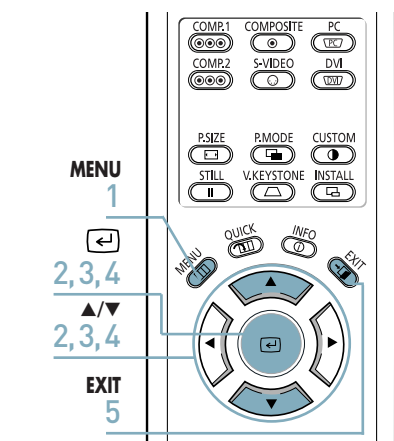



Install Menu	
Front-Floor	Normal Image
Front-Ceiling	Horizontally Reversed Image
Rear-Floor	Vertically Reversed Image
Rear-Ceiling	Horizontal/Vertical Reversed Image


NOTE This function is used to set up reversed image projection for ceiling installation. To install projector, refer to page 14.


Light Setting


Used to set the image brightness by adjusting the amount of light generated by the lamp.




- 

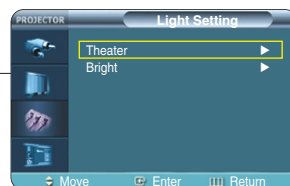
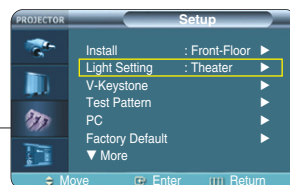
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Setup**, then press the **↵** button.
The **Setup** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Light Setting**, then press the **↵** button.
The **Light Setting** options will be displayed.
- 

4 Press the **▲** or **▼** button to move to desired mode, then press the **↵** button.
Setup is switched to the selected mode.
- 

5 Press the **EXIT** button to exit the settings.

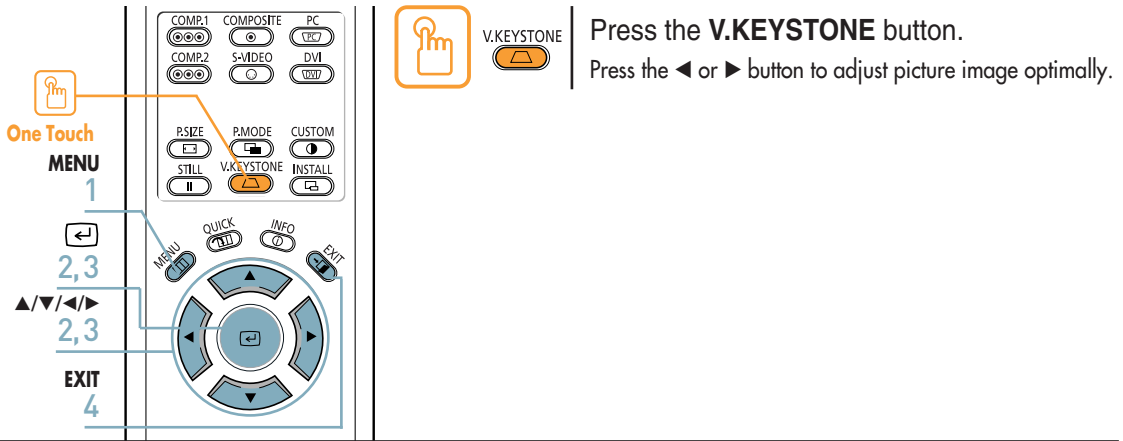


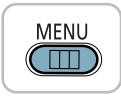
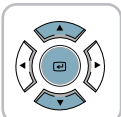
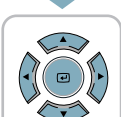

Light Setting Mode

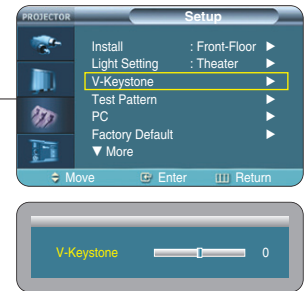
Theater	Using this function, you can adjust the light level of the lamp so that you can comfortably watch pictures on the screen even when watching under dark conditions. It also lowers power consumption and extends the life of the lamp.
Bright	Used to enhance the brightness in relatively bright ambient light. Since this mode increases the light level of the lamp, you may experience more noise which is produced when the projector is cooled down.

Correcting Vertical Keystone

Used to compensate image shape when image distortion occurs.



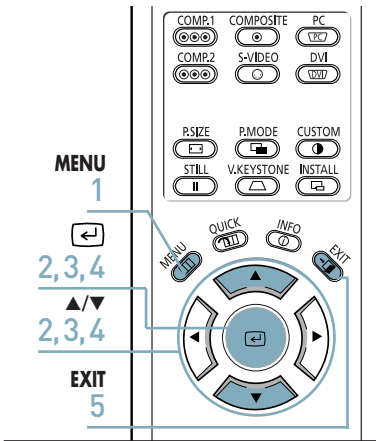
-  **1** Press the **MENU** button.
The main menu is displayed.
-  **2** Press the ▲ or ▼ button to move to **Setup**, then press the ◀ button.
The **Setup** menu is displayed.
-  **3** Press the ▲ or ▼ button to move to **V-Keystone**, then press the ◀ button.
Press the ◀ or ▶ button to adjust.
A separate adjustment window appears for making the adjustment.
-  **4** Press the **EXIT** button to exit the settings.





NOTE V-Keystone corrects distortion of picture image by software. It is better to install the projector properly to avoid distortion instead of using the V-Keystone feature.


Test Patterns


Generated by the projector itself. Utilized as installation basis for better installation of the projector.




- 

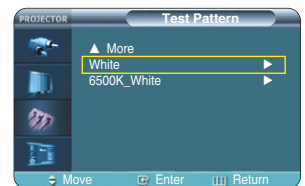
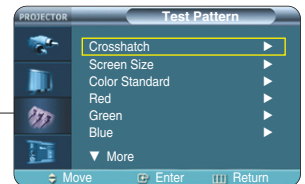
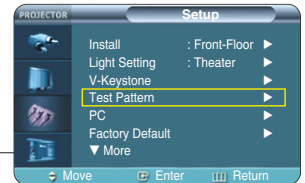
1 Press the **MENU** button. The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Setup**, then press the **↵** button. The **Setup** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Test Pattern**, then press the **↵** button. The **Test Pattern** options will be displayed.
- 

4 Press the **▲** or **▼** button to move to desired pattern, then press the **↵** button. The selected pattern is displayed.
- 

5 Press the **EXIT** button to exit the settings.



Test Pattern Menu

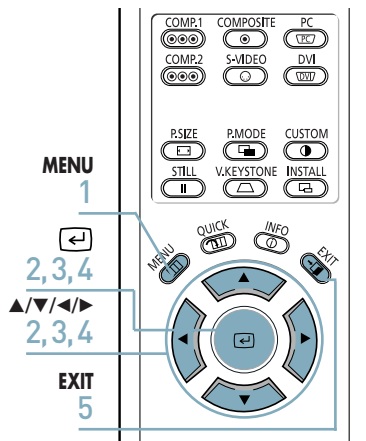
Crosshatch	You can check whether the picture is distorted or not.
Screen Size	You can refer to picture format sizes such as 1.33:1 or 1.78:1.
Color Standard	You can view the difference by changing the Color Standard to SMPTE_D/HD/EBU. For more information about the Color Standard, refer to page 32.
Red	Red Screen, only for color adjustment.
Green	Green Screen, only for color adjustment.
Blue	Blue Screen, only for color adjustment.
White	White Screen, only for color adjustment.
6500K_White	White Screen, shows brightest white color possible.

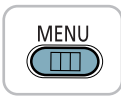


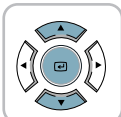
- The Crosshatch and Screen Size patterns of this projector are provided by JKP (JK Production).
- The Red/Green/Blue colors of the test patterns are only for the color adjustment procedures, and may not comply with the actual colors displayed during video playback.

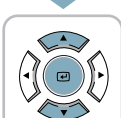
Restoring the Factory Default Settings


Using this function, you can reset various settings to the factory default settings.




- 

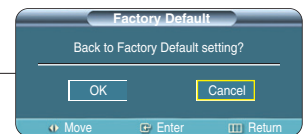
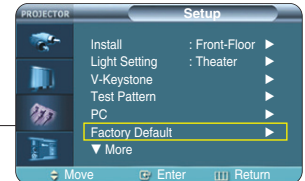
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Setup**, then press the **↵** button.
The **Setup** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **Factory Default**, then press the **↵** button.
The **Factory Default** screen will appear.
- 

4 Press the **◀** or **▶** button to move to **OK**, then press the **↵** button.
Setting values are returned to factory defaults.
- 

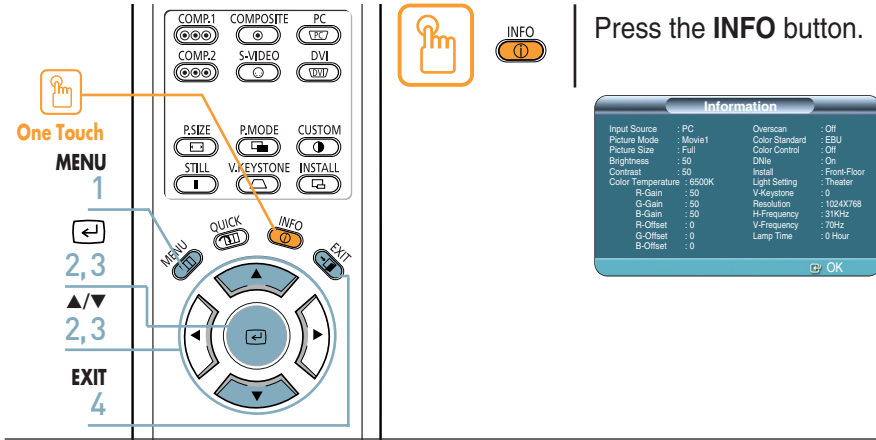
5 Press the **EXIT** button to exit the settings.



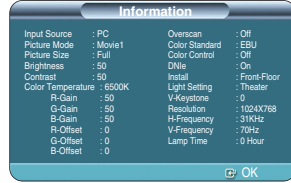
NOTE User settings including Edit Name and Custom Picture will be reset.


Information


You can check external source signals, picture setup, PC picture adjustment and lamp use time.

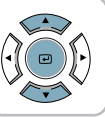



Press the **INFO** button.



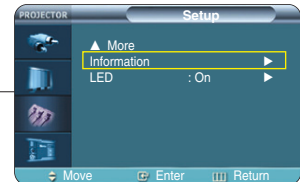
- 

1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Setup**, then press the **↵** button.
The **Setup** menu is displayed.
- 

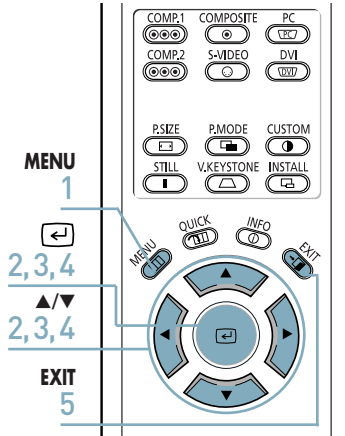
3 Press the **▲** or **▼** button to move to **Information**, then press the **↵** button.
You can check external source signals, picture setup, PC picture adjustment and lamp use time.
- 


4 Press the **EXIT** button to exit the settings.

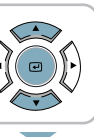



Setting the LED


You can enable or disable the operating LED's on the product.




- 

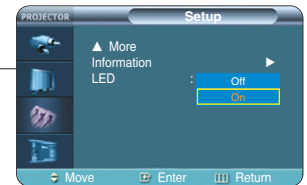
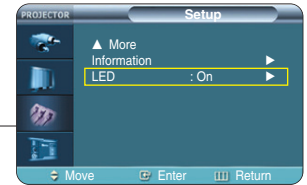
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Setup**, then press the **↵** button.
The **Setup** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **LED**, then press the **↵** button.
The **LED** options will be displayed.
- 

4 Press the **▲** or **▼** button to move to **On**, then press the **↵** button.
Setup is switched to the selected mode.
- 

5 Press the **EXIT** button to exit the settings.



LED Operating Modes

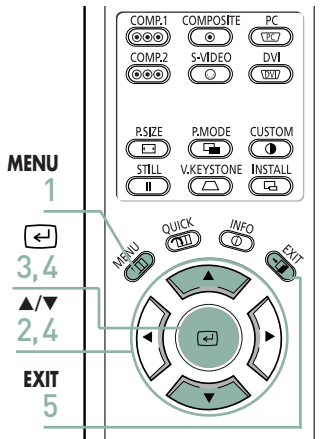
Off	This mode disables the operating LED. However, the light will light up regardless of the LED setting when the power is turned on or off or when the projector is in an abnormal state.
On	This mode enables the operating LED so that it can display the current operating state of the projector.

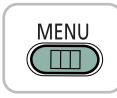

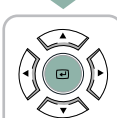


Menu Option

Setting the Language	56
Setting the Menu Position	57
Setting the Menu Translucency	58
Setting the Menu Display Time	59
Selecting the Quick Menu	60

Setting the Language

You can select the language used for the menu screen.

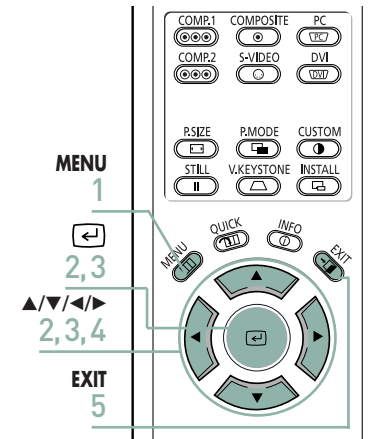



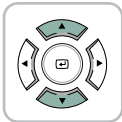



-  **1** Press the **MENU** button.
The main menu is displayed.
-  **2** Press the **▲** or **▼** button to move to **Menu Option**.
The **Menu Option** menu is displayed.
-  **3** Press the **↵** button.
The **Language** is selected.
-  **4** Press the **↵** button again.
Press the **▲** or **▼** button to move to desired language, then press the **↵** button.
Setup is switched to the selected language.
-  **5** Press the **EXIT** button to exit the settings.

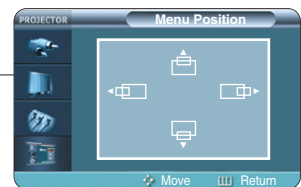


Setting the Menu Position

You can move Menu Position to up/down/left/right.

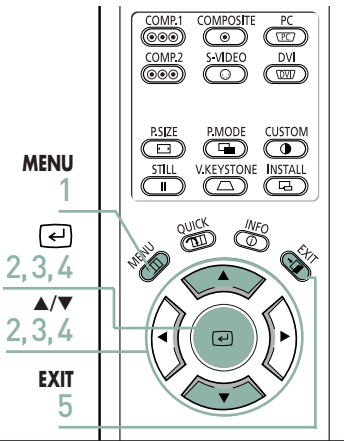


-  **1** Press the **MENU** button.
The main menu is displayed.
-  **2** Press the **▲** or **▼** button to move to **Menu Option**, then press the **↵** button.
The **Menu Option** menu is displayed.
-  **3** Press the **▲** or **▼** button to move to **Menu Position**, then press the **↵** button.
The **Menu Position** is displayed.
-  **4** Press the **▲**, **▼**, **◀**, or **▶** button to move to desired position.
The menu screen will be displayed in the configured position on the screen.
-  **5** Press the **EXIT** button to exit the settings.



Setting the Menu Translucency

You can set the translucency of menu.



1 Press the **MENU** button.
The main menu is displayed.



2 Press the **▲** or **▼** button to move to **Menu Option**, then press the **↵** button.
The **Menu Option** menu is displayed.



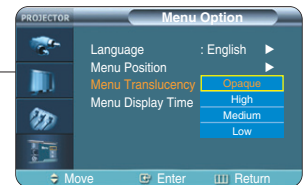
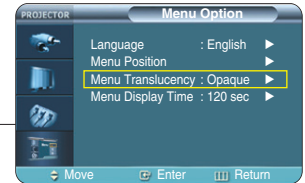
3 Press the **▲** or **▼** button to move to **Menu Translucency**, then press the **↵** button.
The **Menu Translucency** options will be displayed.



4 Press the **▲** or **▼** button to move to desired mode, then press the **↵** button.
Setup is switched to the selected mode.

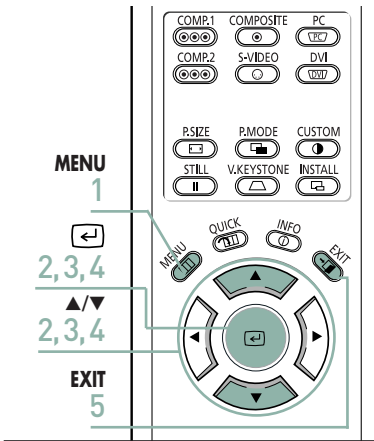


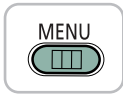
5 Press the **EXIT** button to exit the settings.




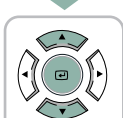
Setting Up the Menu Display Time


You can set the display time of the menu.

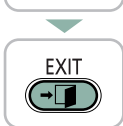


- 

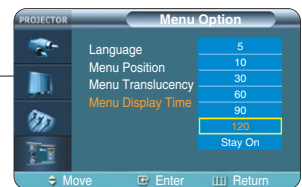
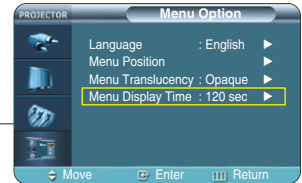
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the ▲ or ▼ button to move to **Menu Option**, then press the ◀ button.
The **Menu Option** menu is displayed.
- 

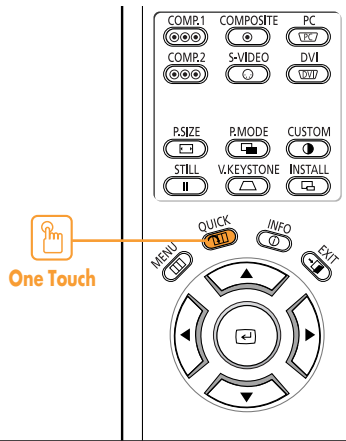
3 Press the ▲ or ▼ button to move to **Menu Display Time**, then press the ◀ button.
The **Menu Display Time** options will be displayed.
- 

4 Press the ▲ or ▼ button to move to desired time, then press the ◀ button.
Setup is switched to the selected time.
- 

5 Press the **EXIT** button to exit the settings.



Selecting the Quick Menu



Press the **QUICK** button.
The menu you used previously will appear.

Connecting to PC

Before Connecting to PC	62
Setting up the PC Environment	63
Connecting to PC	64
Automatic Picture Adjustment	66
Frequency Adjustment	67
Fine Tuning with the Phase Adjustment....	68
Zooming the Screen	69
Reset the PC	70

Before Connecting to PC

Check the following before connecting the projector to a PC.

Check the following before connecting:

- Adjust the PC display setting to the resolution and frequency supported by the projector.
- Refer to the PC user manual (graphic and sound card) when connecting the projector to PC.
- Do not connect power cord until all connections are completed. It may result in damage to the product if you connect power during connection.
- Check the graphic card port type installed in PC.

Display modes supported by this projector

Source	Mode	Resolution (H x V)	Total Resolution	Horizontal Sync		Vertical Sync		Pixel Clock [MHz]	Sync Type		
				Frequency [KHz]	Polarity	Frequency [Hz]	Polarity		Separate	Composite	SOG (Sync-On-Green)
PC & DVI	VGA	640 x 350	800 x 449	31.47	P	70	N	25.175	O	O	X
			832 x 445	37.86	P	85.1	N	31.5	O	O	X
		720 x 400	900 x 449	31.47	N	70	P	28.322	O	O	X
			936 x 446	37.93	N	85	P	35.5	O	O	X
		640 x 480	800 x 525	31.47	N	60	N	25.175	O	O	X
			864 x 525	35.00	N	66.7	N	30.24	O	O	X
			832 x 520	37.86	N	72.8	N	31.5	O	O	X
			840 x 500	37.5	N	75	N	31.5	O	O	X
	832 x 509		43.27	N	85	N	36	O	O	X	
	800 x 600		35.16	N/P	56.3	N/P	36	O	O	X	
	SVGA	1056 x 628	37.88	P	60.3	P	40	O	O	X	
		1040 x 666	48.08	P	72.2	P	50	O	O	X	
		1056 x 625	46.87	P	75	P	49.5	O	O	X	
		1048 x 631	53.67	P	85.1	P	56.25	O	O	X	
832 x 864		49.73	N	74.6	N	57.284	O	O	X		
XGA	1024 x 768	48.36	N	60	N	65	O	O	X		
	1328 x 806	56.4	N	70.1	N	75	O	O	X		
	1312 x 800	60.02	P	75	P	78.75	O	O	X		
SXGA	1280 x 1024	1688 x 1066	63.981	P	60.02	P	108	O	X	X	
PC & DVI & Component	HD	1920 x 1080i	2200 x 1125	33.75	X	60	X	74.25	O	X	SOY
		2640 x 1125	28.125	X	50	X	74.25	O	X	SOY	
		1650 x 750	45	X	60	X	74.25	O	X	SOY	
		1980 x 750	37.5	X	50	X	74.25	O	X	SOY	
		720 x 480p	858 x 525	31.5	X	60	X	27	O	X	SOY
Component	SD	720 x 576p	720 x 576	31.25	X	50	X	27	O	X	SOY
		720 x 480i	858 x 525	15.73	X	60	X	13.5	O	X	SOY
		720 x 576i	864 x 625	15.625	X	50	X	13.5	O	X	SOY



The table complies to IBM/VESA requirements and is based on analog signal input.

NOTE

Refer to "Rear Side and Cables" on page 10 for cables used for connection.

Setting up the PC Environment

1 Click the right mouse button on the Windows wallpaper and click on **Properties**.
Display Properties tab will appear.

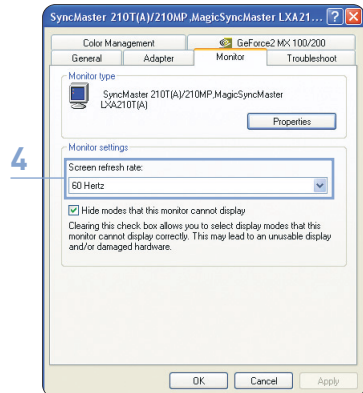
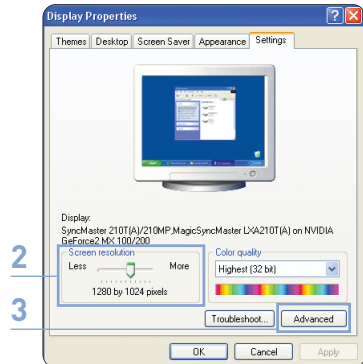
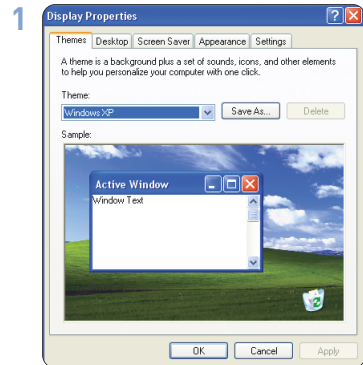
2 Click on **Settings** tab and set the **Screen resolution** by referring to **Resolution** described in the display mode table supported by this projector.
■ You do not have to change **Color quality** setup.

3 Press the **Advanced** button.
Another property window will appear.

4 Click on **Monitor** tab and set the **Screen refresh rate** by referring to **Vertical Frequency** described in the display mode table supported by this projector.
■ Set up both the vertical and horizontal frequency instead of **Screen refresh rate**.

5 Click the **OK** button to close the window, and click the **OK** button of the **Display Properties** window to close the window.
■ The computer might begin restart automatically.

6 Shut down the PC and connect to the projector. (Page 64)



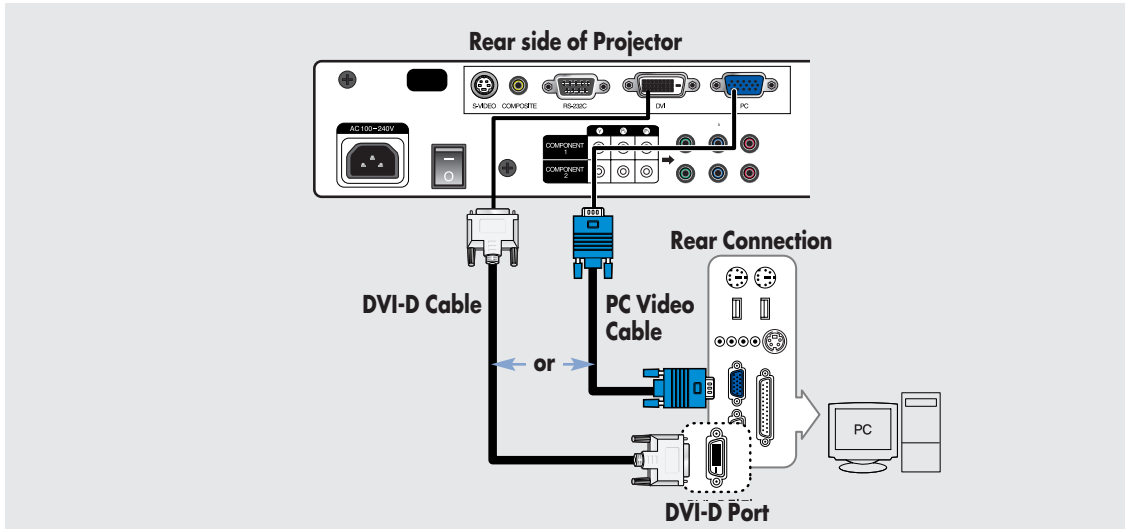
NOTE

- Process might vary depending on the type of computers or Windows versions.
- This appliance supports up to 32 bits per pixel in **Color quality** when it is used as a PC monitor.
- Projected images may differ from the monitor depending on monitor manufacture or Windows versions.
- If a band or an unusual signal appears on the projector when PC is turned off or disconnected, switch to **Composite** mode using the **SOURCE** button or check that PC is properly connected.
- When connecting the projector to PC (including DVI connection), check that PC setup complies to display settings supported by this projector. If not, there may be signal problems.

Connecting to PC

You can connect a PC to the projector and use it as a monitor.

Using PC Video Cable or DVI Cable

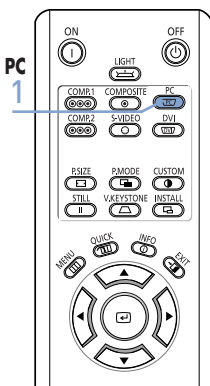


- 1 Connect PC port on the rear side of the projector to the monitor output port of PC using PC video cable.
If PC has a DVI output port, connect it to DVI port of the projector.

- 2 When connections are all completed, connect both power codes of the projector and the PC.

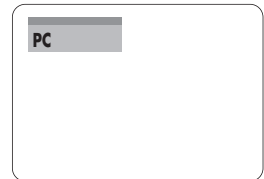
NOTE This product supports Plug & Play. No driver installation is needed for Windows XP.

Viewing the PC Screen



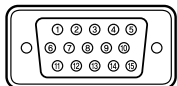
- 1 Turn on the projector and press the PC button to select PC. If the projector is connected to DVI, press the DVI button to select DVI.
 - If PC Mode is not available, check PC video cable is in place.
- 2 Turn on the PC and set the PC Environment when necessary. (Page 63)
- 3 Adjust the screen. (Pages 66~69)

- NOTE**
- Enjoy better picture quality by using DVI-D cable (supports digital signals only) instead of PC Video cable.
 - DVI-I cable (supports analog signals) is not supported. Use DVD-D cable.
 - Sound comes out from PC speakers.



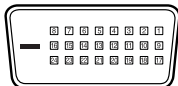
Pin Configuration of PC Video Port Plug

PC Video Cable (15-pin signal)



Pin No.	PC Input
1	Red (R)
2	Green (G)
3	Blue (B)
4	Ground
5	Ground (DDC)
6	Red (R) Ground
7	Green (G) Ground
8	Blue (B) Ground
9	Reserved
10	Ground Sync
11	Ground
12	Data (DDC)
13	Horizontal Sync
14	Vertical Sync
15	Clock (DDC)

DVI-D (supports only digital signals)



Pin No.	Signal	Pin No.	Signal
1	T.M.D.S. DATA2-	13	T.M.D.S. DATA3+
2	T.M.D.S. DATA2+	14	+5V Power
3	T.M.D.S. DATA2/4 Shield	15	Ground for 5V
4	T.M.D.S. DATA4-	16	Hot Plug Detect
5	T.M.D.S. DATA4+	17	T.M.D.S. DATA0-
6	Clock (DDC)	18	T.M.D.S. DATA0+
7	Data (DDC)	19	T.M.D.S. DATA0/5 Shield
8	No Connection	20	T.M.D.S. DATA5-
9	T.M.D.S. DATA1-	21	T.M.D.S. DATA5+
10	T.M.D.S. DATA1+	22	T.M.D.S. Clock Shield
11	T.M.D.S. DATA1/3 Shield	23	T.M.D.S. Clock+
12	T.M.D.S. DATA3-	24	T.M.D.S. Clock-

VESA Plug & Play

This appliance supports VESA Plug & Play and recognizes connection to PC automatically.

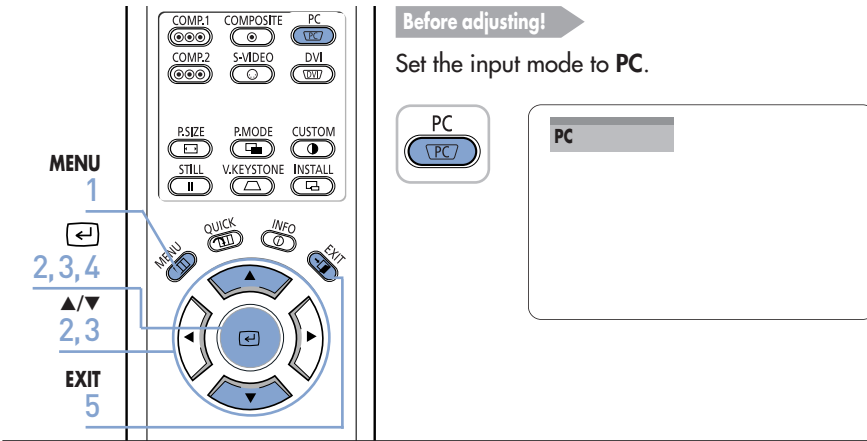


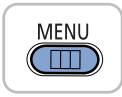
CAUTION

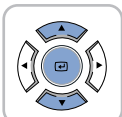
DVI-D cable does not support analog RGB signals.

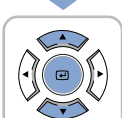
Automatic Picture Adjustment


Used to adjust frequency and phase of PC screen automatically.

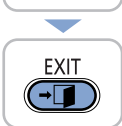


- 

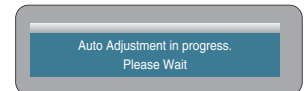
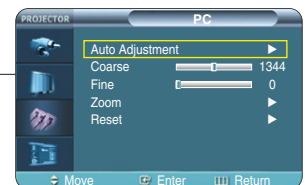
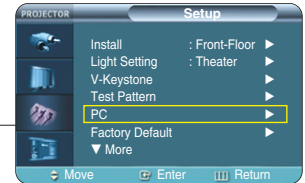
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Setup**, then Press the **↵** button.
The **Setup** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **PC**, then press the **↵** button.
The **PC** menu is displayed.
- 

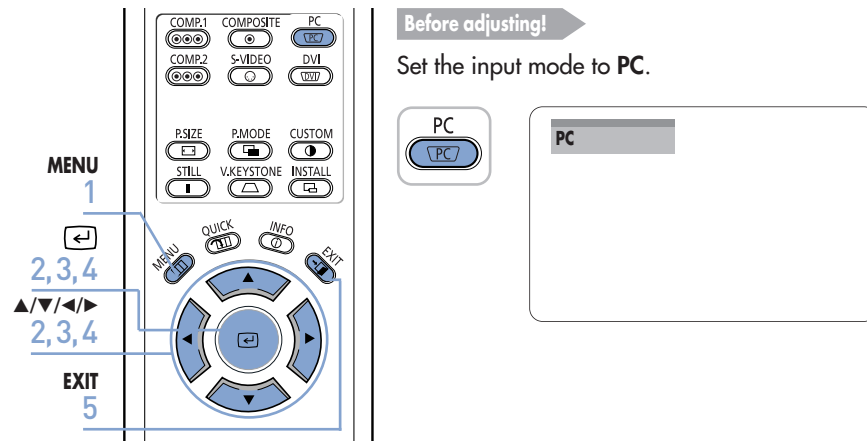
4 Press the **↵** button.
Auto Adjustment in progress message is displayed and PC screen is adjusted automatically.
- 

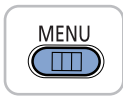
5 Press the **EXIT** button to exit the settings.





Frequency Adjustment


Used to adjust frequency when vertical lines appear on PC screen.




- 

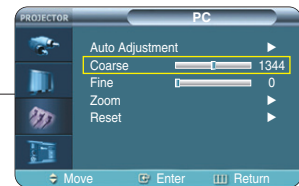
1 Press the **MENU** button.
The main menu is displayed.
- 

2 Press the **▲** or **▼** button to move to **Setup**, then Press the **↵** button.
The **Setup** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **PC**, then press the **↵** button.
The **PC** menu is displayed.
- 

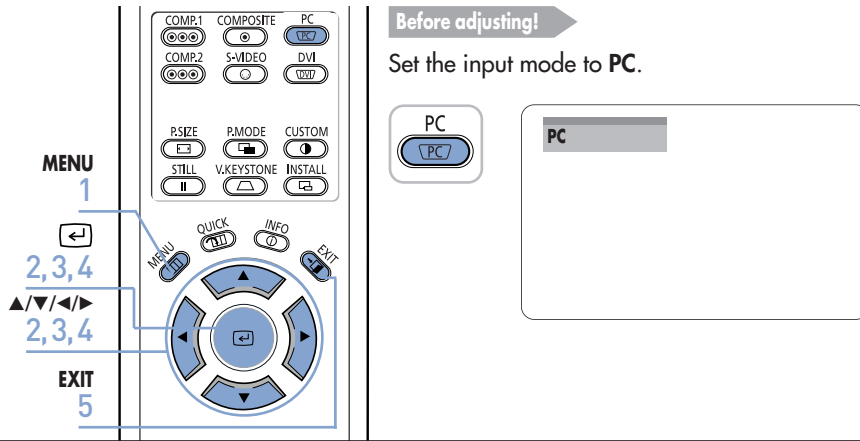
4 Press the **▲** or **▼** button to move to **Coarse**, then press the **↵** button.
Press the **◀** or **▶** button to adjust.
A separate adjustment window appears for making the adjustment.
- 

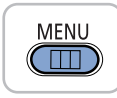

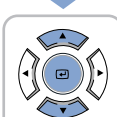
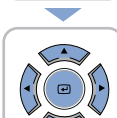
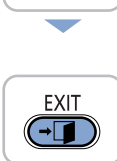
5 Press the **EXIT** button to exit the settings.

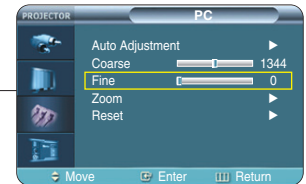


Fine Tuning with the Phase Adjustment

Used to fine tune the PC screen.

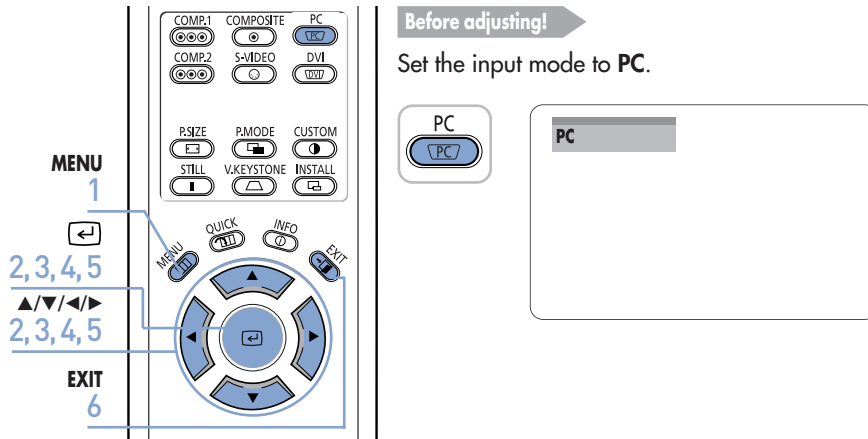


-  **1** Press the **MENU** button.
The main menu is displayed.
-  **2** Press the **▲** or **▼** button to move to **Setup**, then
Press the **↵** button.
The **Setup** menu is displayed.
-  **3** Press the **▲** or **▼** button to move to **PC**, then
press the **↵** button.
The **PC** menu is displayed.
-  **4** Press the **▲** or **▼** button to move to **Fine**, then
press the **↵** button.
Press the **◀** or **▶** button to adjust.
A separate adjustment window appears for making the adjustment.
-  **5** Press the **EXIT** button to exit the settings.



Zooming the Screen

Used to extend PC screen from the center.



1 Press the **MENU** button.
The main menu is displayed.



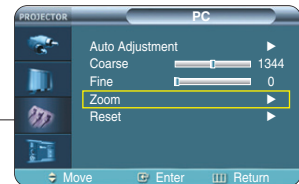
2 Press the **▲** or **▼** button to move to **Setup**, then
Press the **↵** button.
The **Setup** menu is displayed.



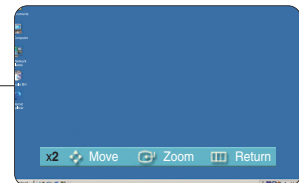
3 Press the **▲** or **▼** button to move to **PC**, then
press the **↵** button.
The **PC** menu is displayed.



4 Press the **▲** or **▼** button to move to **Zoom**, then
press the **↵** button.



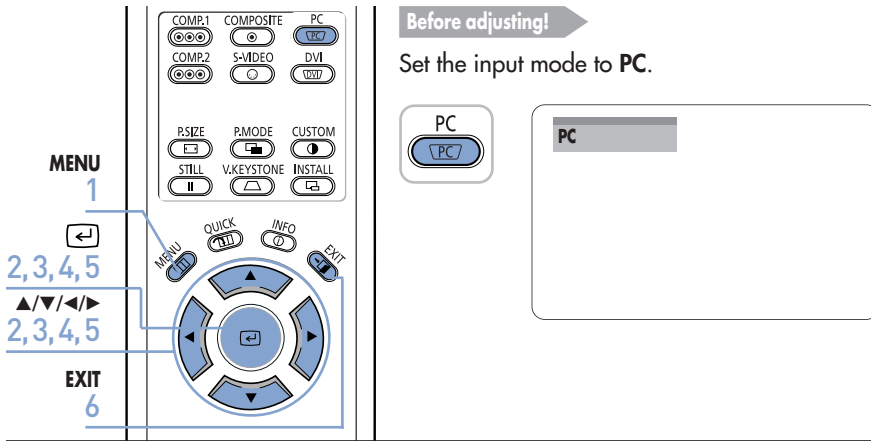
5 Press the **▲**, **▼**, **◀**, or **▶** button to move to
desired position, then press the **↵** button to
extend as you want.
The screen can be extended by **1, 2, 4, or 8 times**.

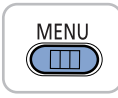



6 Press the **EXIT** button to exit the settings.


Reset the PC


Using this function, you can reset the PC menu settings to the factory default settings.





- 

1 Press the **MENU** button.
The main menu is displayed.
- 

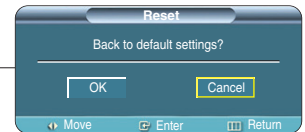
2 Press the **▲** or **▼** button to move to **Setup**, then press the **↵** button.
The **Setup** menu is displayed.
- 

3 Press the **▲** or **▼** button to move to **PC**, then press the **↵** button.
The **PC** menu is displayed.
- 

4 Press the **▲** or **▼** button to move to **Reset**, then press the **↵** button.
- 

5 Press the **◀** or **▶** button to move to **OK**, then press the **↵** button.
The PC is reset to the time of purchasing.
- 

6 Press the **EXIT** button to exit the settings.



Troubleshooting

Before Contacting Service Personnel.....72

Before Contacting Service Personnel

If this projector does not operate properly, check the following first.
If the problem is continues, contact your dealer.



Installation and Connection

Symptoms	Troubleshooting	Note
No Power.	Be sure that the power cord is in place and the power switch on the rear side of the projector is turned on "—".	Page 15
Image is distorted or trapezoidal.	Relocate the position so that the screen is at a right angle with the beam from the projector and adjust the Zoom Control and the Focus Ring. Avoid using the V-Keystone function of the menu if possible. For more information about the V-Keystone function, refer to page 50.	Pages 16~19
Want to install projector on ceiling.	Ceiling bracket is an optional accessory. Please contact your dealer.	
Image is distorted or trapezoidal.	Be sure that the connection cable (video) is properly connected to the proper port. Unless they are connected properly, the device is not available.	Pages 23~25



Menu and Remote Control

Symptoms	Troubleshooting	Note
Remote control does not work.	<ul style="list-style-type: none">■ Be sure that the proper external source is selected.■ Check batteries of the remote control. If there is a problem, replace them with recommended ones.■ Check the angle and distance between the remote control and the projector. Be sure that there is no obstacle between the projector and the remote control that may block the signal.■ Direct lighting of 3-way light bulbs or other lighting device on the remote sensor of the projector may affect the sensitivity and cause the remote control to malfunction.■ Check if the remote control battery is empty.	Page 26 Page 12 Page 13
I cannot select a menu.	Check if the menu is displayed in gray. A gray-colored menu is unavailable.	Pages 23~26



Screen and External Source

Symptoms	Troubleshooting	Note
Cannot see picture images.	<ul style="list-style-type: none"> Be sure that the power cord of the projector is in place. Be sure that the proper input source is selected. Check that the connectors are properly connected to the ports at the back of the projector. Check the Remote Control batteries. Be sure that the Color, Brightness settings are not at their lower limit. 	Page 15 Page 26 Pages 23~25 Page 12 Page 31
Poor color.	Adjust the Color and Brightness .	Page 31
Images are not clear.	<ul style="list-style-type: none"> Adjust the focus. Check that the projection distance is either too far or too near to the screen. 	Page 16 Page 19
Strange noise.	If a strange sound continues, contact our service center.	
The operating LED is lit up.	Take action referring to the contents of the Countermeasures against Abnormal Operating LEDs.	Page 9
Lines appear on screen.	Noisy lines may appear for PC mode in case of frequency discrepancy. Adjust the vertical frequency of your video card on the advanced display property.	Page 67
Green appears on the screen.	Be sure to properly connect the external devices. Especially, connect the component (Y, Pb, Pr) cables matching the color codes.	Pages 23~25
Cannot see the picture from the external devices.	Be sure that the proper operation of the external device. Adjustable items of the Custom Picture Menu are properly set.	Pages 26, 31
Only blue screen appears.	Be sure to properly connect the external devices. Check the connection cables again.	Pages 26, 23~25
Screen appears in black and white or odd color/screen is too dark or bright.	<ul style="list-style-type: none"> Adjustable items of the Custom Picture Menu are properly set. Execute Factory Default if you want to restore the factory default setting values. 	Page 31 Page 52

Other Information

Storage and Maintenance	76
Purchasing Optional Parts	77
Glossary	78
Structure of Screen Menu	80
Lamp Replacement	83
RS-232C Connection and Control	84
Specifications	86
Remote Control Specifications	87

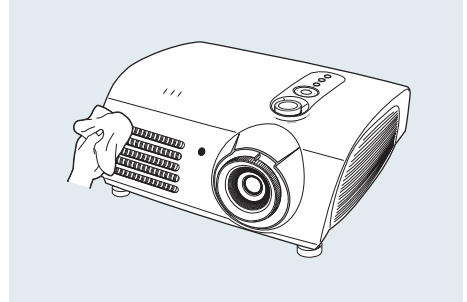
Storage and Maintenance

Clean and maintain the projector in the following way.

Cleaning the Projector and Lens

Use a dry soft cloth.

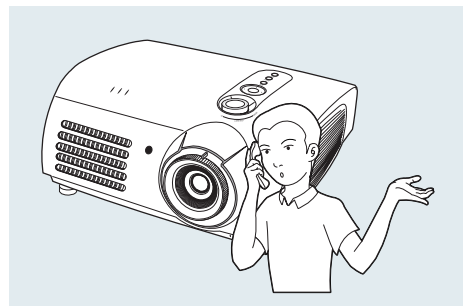
- Do not use flammable materials such as benzene and thinner. Do not use a wet cloth. It may result in malfunction.
- Do not clean the lens using a fingertip or a sharp object. It may leave scratches.



Cleaning the Inside of the Projector

Contact your dealer or service personnel to clean the inside of the projector.

Contact your dealer if particles or other objects are stuck inside of the projector.

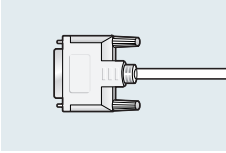


Purchasing Optional Parts

Information for purchasing accessories or optional parts.

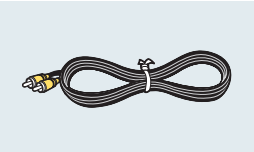
Optional Parts

DVI-D Cable



You can purchase at electronics shops or over the Internet.

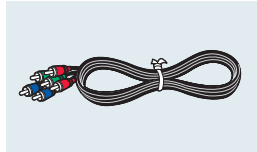
Video Cable



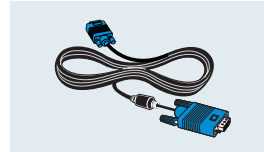
S-Video Cable



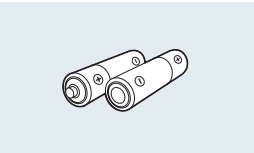
Component Cable



PC Video Cable



1.5V AAA Batteries



You can purchase at electronics shops or over the Internet.
Or you can call your dealer or service center.

Glossary

In this section, you can find the descriptions of terminologies in alphabetical order.

Gamma Mode

Gamma Mode compensates the video signal produced for analog display devices such as a CRT (Cathode Ray Tube) so that the video signal can be clearly displayed on a digital display device.

Digital Broadcast

Digital Broadcast is a television broadcasting signal digitized and transmitted according to the United States' terrestrial digital broadcast specifications, or ATSC.

Backlight Remote Control

The buttons on the Backlight Remote Control are lit up so that users can easily press buttons on the remote control even when it is dark.

Black Level

Black Level sets the light level of the darkest portion of the video signal to match that of the display's black level capability so that users can clearly view dark visuals. If the setting does not match the input signal, the dark screen is saturated and may not display properly or the dark screen looks milky-white.

Color Standard

A pre-determined default color standard determined by the broadcasting standard of the corresponding country or area.

Color Temperature

Color temperature is a simplified way to characterize the spectral properties of a light source. A low color temperature implies a warmer (more yellow/red) light while a high color temperature implies a colder (more blue) light

Analog Broadcast

An existing broadcasting signal transmitted by a broadcasting station in accordance with the NTSC standard.

ANTENNA IN Port

This is the port for connecting a TV aerial using a coaxial cable. It is generally used to watch public broadcast programs.

Overscan

Overscan cuts the edge of the picture when there is unnecessary information, images or noise at the edge of the picture. For extremely poor video signals, some unnecessary video signals may be displayed on the screen.

External Input

External Input is connecting video devices such as a VCR, camcorder, DTV receiver, DVD, etc. to the projector as a video source.

Satellite Broadcast

Satellite Broadcast broadcasts programs via satellite so that the program can be viewed in all area in a high visual and sound quality. Approximately 100 channels including public broadcast channels are provided. To view satellite broadcasts, you have to install an additional receiver.

Component Port (Green, Blue, Red)

The Component Port separately transmits the luminance signal and provides the best quality among all video connection types.

Cable Broadcast

Cable Broadcast broadcasts programs via cable instead of radio waves. To view cable broadcasts, you have to subscribe to your local cable broadcast service provider and install an additional receiver.

AV Receiver

An AV Receiver provides a number of input and output interfaces for audio and video so as to enable the user to connect and use various input and output devices.

COMPOSITE IN Port

A COMPOSITE IN Port is a general video input port (yellow). Both chrominance and luminance are transmitted on the same 75-ohm cable.

DVD (Digital Versatile Disc)

DVD is a large capacity media disk that can save multimedia content such as video, games, audio applications, etc. using MPEG-2 video compression technology on a CD size disc.

DVI (Digital Visual Interface) Port

DVI is a connection standard developed to transfer digital signals for digital devices. The user can view a clearer picture using TMDS transmission technology.

DVI-D Port

The DVI-D Port is one of the DVI ports that can only be used for digital signal transmissions.

DLP (Digital Light Processing)

DLP is a digital display technology using a DMD panel developed by TI (Texas Instruments) of the United States.

DLP HD2+, DC3

This is a grade of DMD panel.

DMD (Digital Micromirror Device)

A DMD panel is an implementation of DLP technology. It consists of microscopic mirrors where each mirror represents a pixel.

RS-232C Port (Service Input Port)

This port is provided for service purposes. This port provides data communication in accordance with the RS-232C communication standard.

S-VIDEO IN Port

This is called super video. S-Video is a type of video signal which has the video brightness and color signal separated in order to provide a better image quality.

5x Speed, 8 Segment Color Wheel

This is an optical part that decomposes white rays into basic colors organizing the screen.

Structure of Screen Menu

You can see the entire structure of screen menu.

Buttons used for Screen Menu

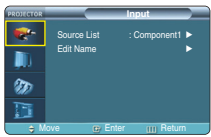


Open Menu/Exit Menu



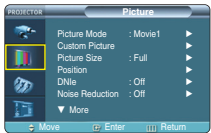
Select an item/change setting value

Select Composite/S-Video/Component Input Mode



Input

- Source List** — Component1 / Component2 / S-Video / Composite / PC / DVI
- Edit Name** — Component1 / Component2 / S-Video / Composite / PC / DVI (Selected without Input)
VCR / DVD / Cable / HD / Satellite / AV Receiver / DVD Receiver / Game
Camcorder / Combo / PC



Picture

- Picture Mode** — Dynamic / Standard / Movie1 / Movie2 / User1 / User2 / User3 / Custom
- Custom Picture**
 - Contrast** 0 ~ 100
 - Brightness** 0 ~ 100
 - Sharpness** 0 ~ 100
 - Color** 0 ~ 100
 - Tint** 0 ~ 100 (Not supported in 480p mode or above)
 - Color Standard** SMPTE_C/HD/EBU
 - Color Temperature** 5500K / 6500K / 8000K / 9300K
 - Gamma** Film / Video / Graphic
 - Save** User1 / User2 / User3

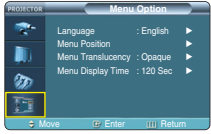
Picture Size	Full / Zoom1 / Zoom2 / 4:3
Position	
DNIe	Off / Demo / On
Noise Reduction	Off / On
Black Level	7.5 IRE / 0 IRE
Color Control	Off / Monochrome / Red / Green / Blue
Film Mode	Off / On
Overscan	Off / On



Setup

Install	Front-Floor / Front-Ceiling / Rear-Floor / Rear-Ceiling
Light Setting	<ul style="list-style-type: none"> Theater Bright
V-Keystone	-50 ~ 50
Test Pattern	<ul style="list-style-type: none"> Crosshatch Screen Size Color Standard Red Green Blue White 6500K_White
PC	<ul style="list-style-type: none"> Auto Adjustment Coarse Fine Zoom Reset OK / Cancel
Factory Default	OK / Cancel
Information	
LED	OK / Cancel

Structure of Screen Menu (Continued)



Menu Option

Language	English / Deutsch / Nederlands / Español / Français / Italiano / Svenska / Português / 中國語 / 한국어
Menu Position	
Menu Translucency	Opaque / High / Medium / Low
Menu Display Time	5 / 10 / 30 / 60 / 90 / 120 / Stay On

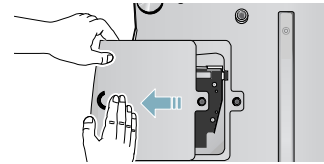
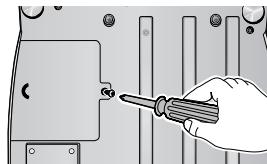
Lamp Replacement

Cautions on Lamp Replacement

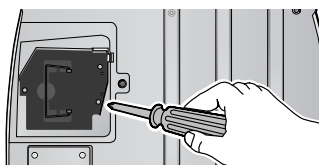
- The projector lamp is an expendable supply. For best operating performance, replace the lamp according to the usage time. You can view the lamp usage time in the Information Display (INFO button).
- Use the recommended lamp when replacing. Lamp specifications are defined in the user's manual. Replace with the same model provided with the projector.
 - Lamp Model Name : LAMP-MERCURY-Philips
 - Lamp Manufacture : Philips Lighting
 - Lamp Life Time : 2000Hrs
 - Lamp Type : 250W UHP
 - Lamp Part Number : BP47-00010A
- Check that the power cord is unplugged before replacing lamps.
- Even after the power cord has been disconnected, the lamp will be hot. Allow it to cool down for at least 1 hour before changing the lamp.
- The projector lamp is installed at the bottom of the projector.
- Before you turn the projector over to change the lamp, cover the projector with a soft cloth on a flat surface.
- Do not leave the old lamp near inflammables or in reach of children. There is a danger of burn or injury.
- Remove dirt or foreign materials around or inside the lamp unit using a proper vacuum device.
- Be careful not to touch the lamp itself when handling the lamp unit.
- If the lamp is poorly handled, it may result in poor picture quality or shorter life time of lamp.
- The projector will not operate normally if the cover is not locked completely after lamp replacement. Refer to LED information in the user's manual if the projector does not operate normally.

Lamp Replacement Procedure

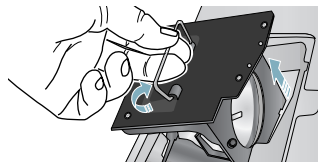
- 1 The lamp is very hot and operates with a high voltage. Allow it to cool down for at least 1 hour after disconnecting the power cord before changing the lamp.
- 2 The projector lamp is installed at the bottom of the projector. Turn the projector over so that the base plate faces upward and remove the screws on the lamp cover.
- 3 Push to open the lamp cover in the direction of the arrow.



- 4 Detach the three screws.



- 5 Lift up and hold the lamp handle and pull the lamp module out as shown in the following figure.



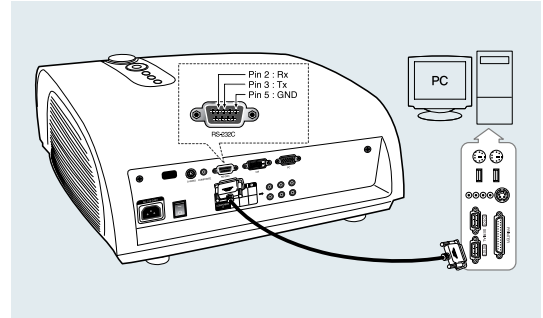
- 6 Reverse the disassembly procedure to assemble the unit after replacement.

RS-232C Connection and Control

Connecting the Projector to a PC

You can connect the Projector to a PC using the RS-232C (Crossed, Female Type) cable to control the projector.

- Do not disconnect or connect the RS-232C cable while the Computer or the Projector is operating. It may cause serious damage to the Computer or the Projector.
- If the PC is not properly configured, the RS-232C connection may not work properly. For further details, refer to the Computer's product documentation.



Communication Format (Complies with the RS232C Standard)

- Transmission Speed: 115,200 bps
- Parity Bit: No
- Data Length: 8 data bits, 1 stop bit

Transmission Sequence and Data Format

Transmission Sequence

Argument 1 → Argument 2 → -----
Argument N, Command, Response

Structure for Variables (8 bytes)

0x08	0x11	N	PN	CS
------	------	---	----	----

- N : Variable's Number (Hexadecimal)
- PN : Value of the Variable
(Implemented in 4 bytes - Hexadecimal)
- CS : Checksum
(Boolean complementation of the summation of all bytes except the CS)

Command Structure (4 bytes)

CN	0x12	CC	CS
----	------	----	----

- CN : Command + Number of Variables
(Hexadecimal)
- CC : Command - Hexadecimal
(Refer to the commands table)
- CS : Checksum
(Boolean complementation of the summation of all bytes except the CS)

Command Structure (4 bytes)

- Confirms proper data transmission
 - No response for communication errors or invalid commands
- | | | | |
|----|------|----|----|
| CN | 0x12 | CC | CS |
|----|------|----|----|

- Transmit the following control command to transmit one or more control commands if there was a successful response for the previous transmission or there was no response in over 3 seconds.
- While controlling the Projector using a Computer, you cannot check the Projector's status change using the Computer nor will it be displayed on the Projector's screen. Transmit the INFORMATION command to display the current information on the Projector's screen.
- All the control commands apply to the input source and the Projector's status currently displayed.

Commands

e.g.) DISPLAY → CUSTOM CONFIGURATION → Set the CONTRAST to 60

Parameter 1	0x08	0x11	0x01	0x00	0x00	0x00	0x01	0xE5
Parameter 2	0x08	0x11	0x02	0x00	0x00	0x00	0x03	0xE2
Parameter 3	0x08	0x11	0x03	0x00	0x00	0x00	0x3C	0xA8
Command	0x04	0x12	0x4B	0x9F				
Return	0x03	0x0C	0xF1					

★ : Range is -50 ~ 50, use the Boolean Complementary for negative values.

	CONTROL ITEMS		COMMAND	PARAMETERS	RETURN
GENERAL	POWER	On	76	0.5	
		Off	76	0.3	
		DIRECT OFF	76	0.9	
Input	Input	Component1	76	2.8	
		Component2	76	2.9	
		S-Video	76	2.11	
		Composite	76	2.10	
		PC	76	2.12	
		DVI	76	2.7	
	Check	Component1	77	64,204	1 or 0
		Component2	77	64,205	1 or 0
		S-Video	77	64,210	1 or 0
		Composite	77	64,211	1 or 0
Picture	Picture Mode	Dynamic	75	2,10.0	
		Standard	75	2,10.1	
		Movie1	75	2,10.2	
		Movie2	75	2,10.3	
Picture	Custom Picture	Contrast (0-100)	75	1.3.x	
		Brightness (0-100)	75	1.4.x	
		Sharpness (0-100)	75	1.5.x	
		Color (0-100)	75	1.6.x	
		Tint (0-100)	75	1.7.x	
		Color Standard	76	1.1.0	
	Color Temperature	5500K	75	2.0,3	
		6500K	75	2.0,2	
		9300K	75	2.0,1	
	Gain	R (0-100)	75	2.3.x	
		G (0-100)	75	2.4.x	
		B (0-100)	75	2.5.x	
	Offset	R (-50-50)	75	2.6.x	★
		G (-50-50)	75	2.7.x	★
		B (-50-50)	75	2.8.x	★
	Gamma	Film	75	2.1,0	
		Video	75	2.1,1	
		Graphic	75	2.1,2	
	Save	User1	75	2.2,0	
		User2	75	2.2,1	
		User3	75	2.2,2	
	Picture Size	Full	75	2.9,0	
		Zoom1	75	2.9,2	
		Zoom2	75	2.9,3	
	Position	4:3	75	2.9,4	
		UP	75	2,13.0	
		DOWN	75	2,13.1	
		LEFT	75	2,13.2	
	DNile	RIGHT	75	2,13.3	
		On	76	0,1,1	
Off		76	0,1,0		
Noise Reduction	Demo	76	0,1,2		
	On	76	0,8,1		
	Off	76	0,8,0		

	CONTROL ITEMS		COMMAND	PARAMETERS	RETURN
Picture	Black Level	7.5 IRE	76	0.7,0	
		0 IRE	76	0.7,1	
	Color Control	OFF	76	3.7,0	
		Monochrome	76	3.7,1	
		Red	76	3.7,2	
	Film Mode	Green	76	3.7,3	
		Blue	76	3.7,4	
		On	75	2,11,1	
	Overscan	Off	75	2,11,0	
		On	75	2,12,1	
Off		75	2,12,1		
Setup	Install	Front-Floor	75	0.1,0	
		Front-Ceiling	75	0.1,1	
		Rear-Floor	75	0.1,2	
	Light Setting	Rear-Ceiling	75	0.1,3	
		Theater	76	0.2,1	
		Bright	76	0.2,0	
	Test Pattern	Crosshatch	76	0.0,1	
		Screen Size	76	0.0,8	
		Color Standard	76	0.0,2	
		Red	76	0.0,3	
		Green	76	0.0,4	
		Blue	76	0.0,5	
		White	76	0.0,6	
		6500K_White	76	0.0,7	
		V-Keystone	V-Keystone (-50-50)	75	0.3,x
PC		Auto Adjustment	76	6.5	
	Coarse (0-2000)	76	6.3,x		
	Fine (0-255)	76	6.4,x		
Factory Default	Zoom (0-3)	76	6,13,x		
	PC Reset	76	6,14		
	CONFIRM	76	9		
Information	OK	76	0.2,0		
	On	76	1,18,1		
	Off	75	1,18,0		
Menu Option	Language	English	76	10,0,0	
		Deutsch	76	10,0,1	
		Nederlands	76	10,0,2	
		Español	76	10,0,3	
		Français	76	10,0,4	
		Italiano	76	10,0,5	
		Svenska	76	10,0,6	
		Português	76	10,0,7	
		中国語	76	10,0,8	
		한국어	76	10,0,9	
	Menu Position	UP	76	10,1,0	
		DOWN	76	10,1,1	
		LEFT	76	10,1,2	
	Menu Translucency	RIGHT	76	10,1,3	
		Opaque	76	10,2,0	
		High	76	10,2,2	
	Menu Display Time	Medium	76	10,2,4	
		Low	76	10,2,6	
		Stay On	76	10,3,6	
	Menu	5	76	10,3,0	
10		76	10,3,1		
30		76	10,3,2		
60		76	10,3,3		
90		76	10,3,4		
120		76	10,3,5		
EXIT	76	0.4			

Specifications

Design and specifications of the product may be modified without prior notice for better performance. This appliance is Class B device that can be used in both residential and industrial areas.

Classification		Model	SP-H800
Panel	Size	0.8"(HD2+, DC3)	
	Resolution	1280 x 720	
Lamp	Type	250W UHP	
	Life Time	2000Hrs	
Power	Power Consumption	350W	
	Voltage	AC 100-240V~	
	Frequency	50/60Hz	
Dimensions		384 x 425 x 177 mm	
Weight		9.0 kg / 19.8 lb	
Accessories		Owner's Instructions, Power Cord, Remote control, Batteries	
Key Features	Brightness	700 ANSI	
	Contrast (Theatre Mode)	3800 : 1	
	Screen Size	Diagonal 30.385~300"	
	Projection Range	1.0 ~ 13.6 m	
	Keystone	Vertical	
Input/Output	DVI	1) Connector Type: DVI-D	
		2) Available Format: PC - VGA~SXGA DTV - 480p, 576p, 720p, 1080i	
		3) Frequency: Refer to page 67.	
	PC	1) Connector Type: 15Pin D-Sub	
		2) Frequency: Refer to page 67.	
	Component 1	1) Signal Type: Y, Pb, Pr	
	Component 2	2) Available Format: 480i, 480p, 576i, 576p, 720p, 1080i	
		3) Frequency: Refer to page 67.	
	S-Video	Signal Format: NTSC, PAL, SECAM	
	Composite		
RS-232C	Service Port		
User Environment	Temperature and Humidity	Operating	Temperature (32~104°F / 0~40°C), Humidity (10~80%)
		Storage	Temperature (-4~113°F / -20~45°C), Humidity (5~95%)
	Device Classification	Class B	
	Noise	Min 28dB (Theater Mode)	

The DMD Panel used in DLP Projectors consists of several hundred thousand micro mirrors. As with other visual display elements, the DMD Panel may include a few bad pixels. Samsung and the DMD Panel manufacturer have a rigid, bad pixel identification and limitation procedure in place and products will not exceed the maximum number of bad pixels set by our standards. Rarely, non-displayable pixels may exist, however it does not affect the overall picture quality nor the lifespan of the product.

Remote Control Specifications

Function and Transmission Codes

Button	System Code	Data Code	Button	System Code	Data Code	
(Power) ON	07	99	CUSTOM	07	1E	
(Power) OFF	07	98	STILL	07	42	
COMP.1 (Component1)	07	86	V.KEYSTONE	07	81	
COMP.2 (Component2)	07	88	INSTALL	Front-Floor	07	BB
COMPOSITE	07	84		Front-Ceiling	07	EE
S-VIDEO	07	85		Rear-Floor	07	EF
PC	07	69		Rear-Ceiling	07	BF
DVI	07	8A	MENU	07	1A	
P.SIZE	Full	07	QUICK	07	58	
	Zoom1	07	INFO	07	1F	
	Zoom2	07	EXIT	07	2D	
	4 : 3	07	▲ (Up)	07	60	
P.MODE	Dynamic	07	▼ (Down)	07	61	
	Standard	07	◀ (Left)	07	65	
	Movie1	07	▶ (Right)	07	62	
	Movie2	07	⏏ (Enter)	07	68	
	User1	07				
	User2	07				
	User3	07				
	Custom	07				

Remote Control Signal Format

